THE DRUG AND COSMETIC INDUSTRY

VOL. XXXIV, No. 3 Established 1914 MARCH, 1934

THOMAS R. FARRELL, Editor
ELMER F. SHEETS, Managing Editor
FRAZER V. SINCLAIR, Business Manager
FRANCIS CHILSON, Technical Editor
HARRY G. KELBLY, Circulation Manager

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Front Cover

On the front cover we show a small part of the largest gathering of drug people in the country. Over 1,200 men gathered at the Ninth Annual Drug Trade Get-together dinner in the Waldorf in New York on March 8.

THE DRUG AND COSMETIC INDUSTRY is published monthly by Drug Markets, Inc., Frazer V. Sinclair, *President and Treasurer;* Thomas R. Farrell, *Vice-president and Secretary.* Publication Address, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 West 31st St., New York, N. Y.

Subscription price—$2.00 a year, in advance, Foreign Countries, $3.00. Single copies, 25c; Back issues 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879.

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FREE MONTHLY PAPER GIVES COSMETIC "NEWS"

GET YOUR NAME ON MAILING LIST OF THE "GIVAUDANIAN"

An "earthy" odor is needed at the Century of Progress Exposition, for a coal mine, Washington seethes with the Tugwell Bill agitation. Vetivert prices skyrocket, scrambling perfumers' plans . . .

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THREATENS N.R.A.
What Strength?
WHY USE 8 Oz. TO GALLON WHEN 7 Oz. IS ENOUGH
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Buyers' Guide

The firms listed below are reliable sources of supply which we are glad to recommend to our readers.

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Innis, Speiden & Co., Inc.
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Pfaltz & Bauer, Inc.

Alcohol
American Commercial Alcohol Corp.
Empire Distilling Corp.
Rossville Commercial Alcohol Corp.
U. S. Industrial Alcohol Co.

Alkaloids
Abbott Laboratories
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Aromatic Chemicals, Essential Oils, Flavors
Budd Aromatic Chemical Co., Inc.
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co. Inc.
Evergreen Chemical Co., Inc.
Benj. French, Inc.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
George Lueders & Co.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
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Van Dyk & Co.
Albert Verley, Inc.

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Beeswax
W. H. Bowdlear Co.
Koster-Keunen
Theodor Leonhard Wax Co., Inc.
Smith & Nichols, Inc.
Will & Baumer Candle Co.

Botanical Drugs
W. Benkert & Co., Inc.
J. L. Hopkins & Co.
Peek & Velsor, Inc.
S. B. Penick & Co.

Bromides
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Chalk
Industrial Chemical Sales Co., Inc.
John & E. Sturge, Ltd.

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J. T. Baker Chemical Co.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
Mallinckrodt Chemical Works
McKesson & Robbins, Inc.
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Cod Liver Oil
W. Benkert & Co., Inc.
Consumers Import Co.
P. R. Dreyer, Inc.
McKesson & Robbins, Inc.
S. B. Penick & Co.

Colors
Ansbacher-Siegle Corp.
Fezandie & Sperrle, Inc.
Interstate Color Co., Inc.
H. Kohnstamm & Co., Inc.
Leeben Chemical Co., Inc.
R. F. Revson Co.

Gums
Paul A. Dunkel & Co., Inc.
J. L. Hopkins & Co.
Innis, Speiden & Co.
S. B. Penick & Co.
Thurston & Braidich

Lanolin
American Lanolin Corp.
Innis, Speiden & Co.
N. I. Malmstrom & Co.
Pfaltz & Bauer, Inc.

Lipsticks, Rouges, Etc.
Sterling Manufacturing Co.

Magnesia
Schofield-Donald Co., Inc.

Medicinal Chemicals
Abbott Laboratories
J. T. Baker Chemical Co.
Benzol Products Co.
California Fruit Growers Exchange
Dow Chemical Co.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Co.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.
Sherka Chemical Co.

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Applicators
Glass Products Co.
Penn. Glass Products Co.

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Carr-Lowrey Glass Co.
Glass Products Co.
Hagerty Bros. & Co.
Hazel-Atlas Glass Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.
Swindell Brothers, Inc.

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Lowe Paper Co

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Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.
Bridgeport Metal Goods Mfg. Co.
Chase Brass & Copper Co.
General Plastics, Inc.
Ferd. Gutmann & Co.
Phoenix Metal Cap Co.
Resinox Corp.

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National Collapsible Tube Co.
New England Collapsible Tube Co.
White Metal Mfg. Co.

Corks
Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.

Cosmetic Cases
Bridgeport Metal Goods Mfg. Co.
Chase Brass & Copper Co

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August Giese & Son

Glassine Paper
Riegel Paper Corp.

Labels
John Horn

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Arthur Colton Co. (Tube & Tablet)
Karl Kiefer Machine Co. (Bottle)
Geo. G. Rodgers Co. (Tube)
F. J. Stokes Machine Co. (Tube & Tablet)
Stokes & Smith Co. (Powder)
U. S. Bottlers Machinery Co. (Bottle)

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Alsop Engineering Corp.
Ertel Engineering Corp.
Pfaudler Company
George G. Rodgers Co.
F. J. Stokes Machine Co.

Plastic Materials
General Plastics, Inc.

Tanks, Kettles
Alsop Engineering Corp
Ertel Engineering Corp.
Pfaudler Company

Vials
Kimble Glass Co.

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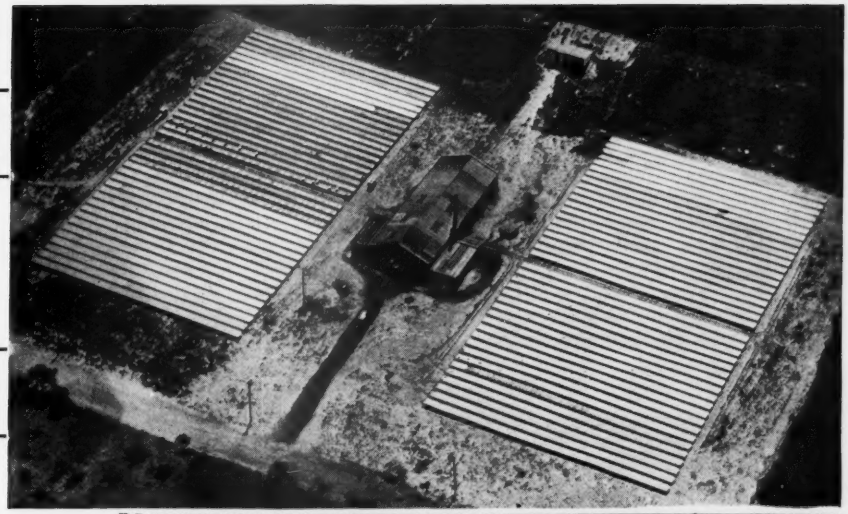
Beeswax guaranteed 100% sunbleached without any chemicals. Visit our bleacheries and convince yourself.

KEUNEN



SUNBLEACHED BEESWAX

Many American manufacturers have known Koster Keunen as a name famous in Europe for the quality of the sunbleached beeswax they have produced for 80 years.

Now for a little over a year Koster Keunen has also been established in America, at Sayville, Long Island.

Here sunlight and air conditions are as ideal as at the home plant at Aalst, Holland.

Here the same crude wax is sunbleached and refined under the same critical eyes which have made Koster Keunen the standard of quality in Europe for 80 years.

Now that we are fully established at Sayville, Long Island with increased production facilities, we can offer additional American manufacturers this famous beeswax.

May we send samples and quote prices?

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Represented in the Middle West by
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KOSTER KEUNEN (*SUNBLEACHED AND YELLOW BEESWAX*) SAYVILLE (LONG ISLAND) NEW YORK

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When you sample or package your products in Kimble Glass Vials, the "travelling expenses" are cut to a minimum—for Kimble Vials are the lightest glass containers known. Their weight ranges from 40 to 60% less than moulded bottles of equal capacity. This feature effects valuable economies in your annual shipping costs—for Kimble Vials always travel for less.

In addition to this important feature of shipping economy, Kimble Vials possess great strength and travelling stamina—the result of the special heat re-tempering process to which they are subjected. Made entirely by automatic machines, Kimble Vials are always uniform in size, diameter and wall thickness.

Moulded caps in numerous colors—attractive metal closures of many types and designs—add smartness and sales appeal. Kimble Vials are made in a large assortment of styles and sizes to meet practically any packaging problem.

Follow America's great leaders in the use of Kimble Vials and small glass containers!

KIMBLE GLASS CO.

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D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
and Kindred Products

CAPRIOL
ELANTHUS
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three widely used odors.

We recommend them highly if you wish to improve your creams, lotions or toilet waters

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"D & O" PERFUME BASES

suit every special need of the perfumer and soap maker. Our Service Department offers its assistance free of any charge

DODGE AND OLCOTT COMPANY
180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products."
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DOW EPSOM SALT
U.S.P. RECRYSTALLIZED

● Large Stocks of Dow Epsom Salt are stored in spacious plant warehouses, and at conveniently located stock points.

SPARKLING, needle-shaped crystals, colorless, and uniform in size, are distinguishing characteristics of Dow Epsom Salt U. S. P., Recrystallized. This product exceeds the requirements of U. S. P. X., and contains neither chemical nor mechanical impurities. It is widely used for general medicinal and veterinary purposes, and is ideal for repackaging for resale through retail drug channels.

MAGNESIUM SULPHATE DESICCATED

A desiccated form of Epsom Salt U. S. P., containing approximately 29% H_2O. It is used as a medicinal in products such as compound tablets and effervescent salts, which require a dried and concentrated material.

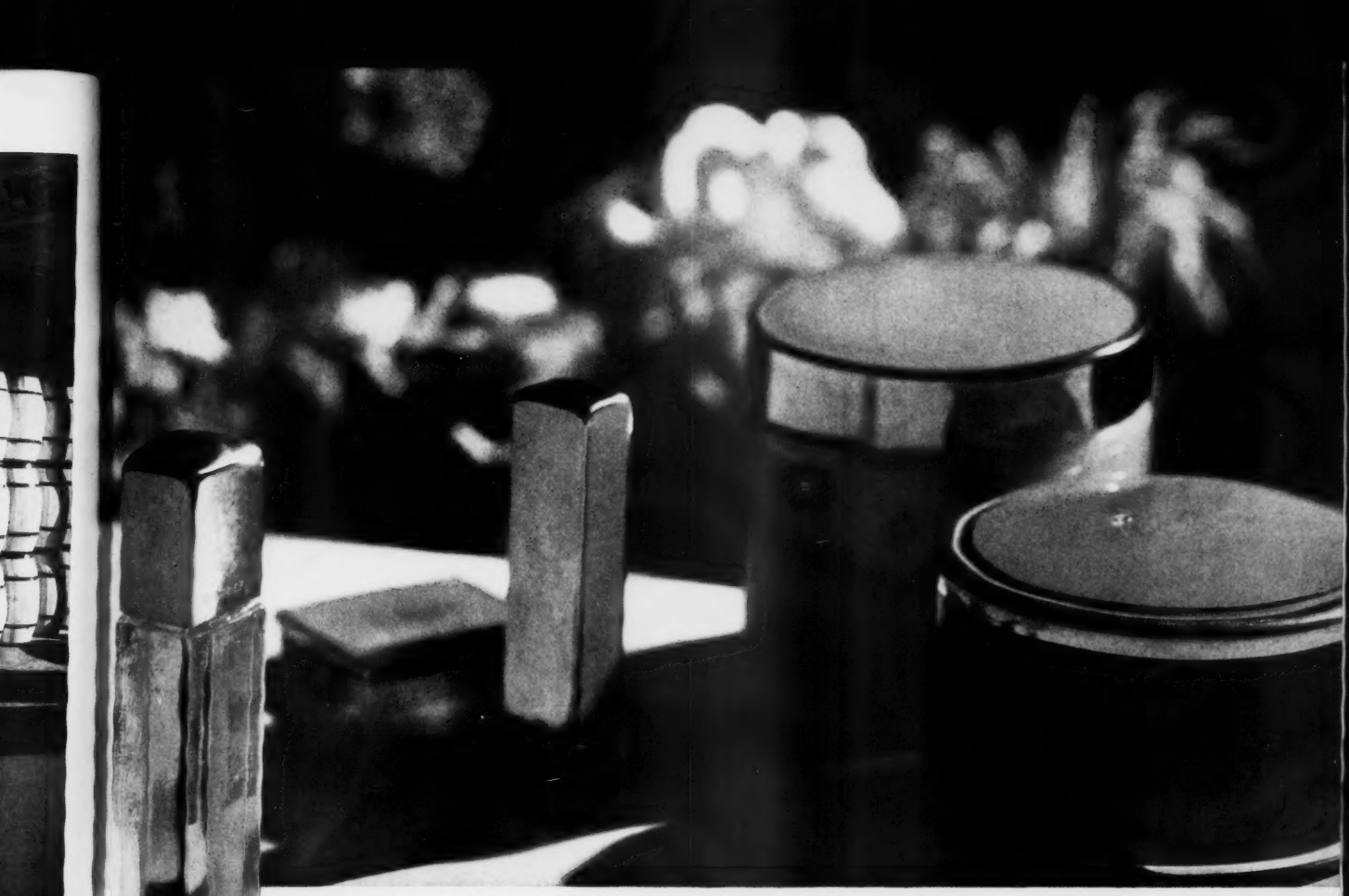
THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

Branch Sales Offices: 60 East 42nd Street, New York City
Second and Madison Streets, Saint Louis

Dow Pharmaceutical Chemicals Include:

Acetphenetidin, U. S. P.
Antipyrine, U. S. P.
Benzoic Acid, U. S. P.
Bromine, Purified—Minor Bromides
Chloroform, U. S. P.
Cinchophen, U. S. P.
Epsom Salt, U. S. P. Recrystallized
Ferric Chloride, U. S. P. (Solution or Crystals)
Magnesium Sulphate, Desiccated
Phenol, U. S. P.
Acetyl Salicylic Acid, Granulation, 10% Starch (White, Pink, Green) also 16% Starch (White)
Acetyl Salicylic Acid, U. S. P. (Powder or Crystals)
Methyl Salicylate, U. S. P.
Salicylic Acid, U. S. P.
Sodium Salicylate, U. S. P.
Minor Salicylates
Sodium Benzoate, U. S. P.
Strontium Bromide, U.S.P. IX
Tetrachlorethylene, Purified
Trichloracetic Acid, U. S. P.

TRADE DOW MARK



Popularity came quickly, SO THIS MANUFACTURER* WROTE:

Will you modify for us the odour you created for this perfume — in compositions suitable for powder, cream, and lipstick?

. . . all four odours (including the first heartening success) were created **exclusively** for this patron by the house of ALBERT VERLEY, INC.

The second commission, to laboratories with the experience and resources of Albert Verley, Inc., was merely a **technical matter**—certain modifications for the powder, to avoid discoloration—certain modifications for the cream, to avoid smarting the skin—and so on to a satisfactory result for each product in this well-known line. ● The original **sales success,** however, contains food for thought — very practical thought, if you please, about the progress of your own business. ● Somewhere in **your own line,** is there not hope for similar response to a new, modern composition? And a similar need for doing something about it? ● The house of Albert Verley, Inc., will deem it a privilege to place its facilities at your disposal — including exclusive use of the finer synthetics discovered and perfected by Dr. Albert Verley, and the natural flower essences and essential oils of Tombarel Freres, Grasse, France. Please command us. ● **Albert Verley, Inc.,** David A. Bennett, President, 11 East Austin Ave., Chicago; L. J. Zollinger, Vice President, 114 East 25th St., New York. Exclusive American representatives for ETABLISSEMENTS ALBERT VERLEY, 8, Quai de la Marine, Isle St. Denis, (Seine), Paris, and S. A. TOMBAREL FRERES, Grasse, France. Pacific Coast Distributors: Mefford Chemical Company, 1026 Santa Fe Ave., Los Angeles, Calif.

*An obligation of honour, in accordance with the customary policy of Albert Verley, Inc., prevents naming our well-known patron

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STURGE'S STANDARD PRECIPITATED CHALK
THE STANDARD FOR A GOOD TOOTH PASTE
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Distributors
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Bismuth Subnitrate

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Minor Bismuth Preparations

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Aspir Gran
Acetphenetidin U.S.P.
Caffeine U.S.P.
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Chloramine U.S.P.
Glycerophosphates
Phenolphthalein U.S.P.
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Monsanto Chemical Company
St. Louis, U.S.A.

New York • Boston • Chicago • San Francisco • Montreal • London

Chemicals

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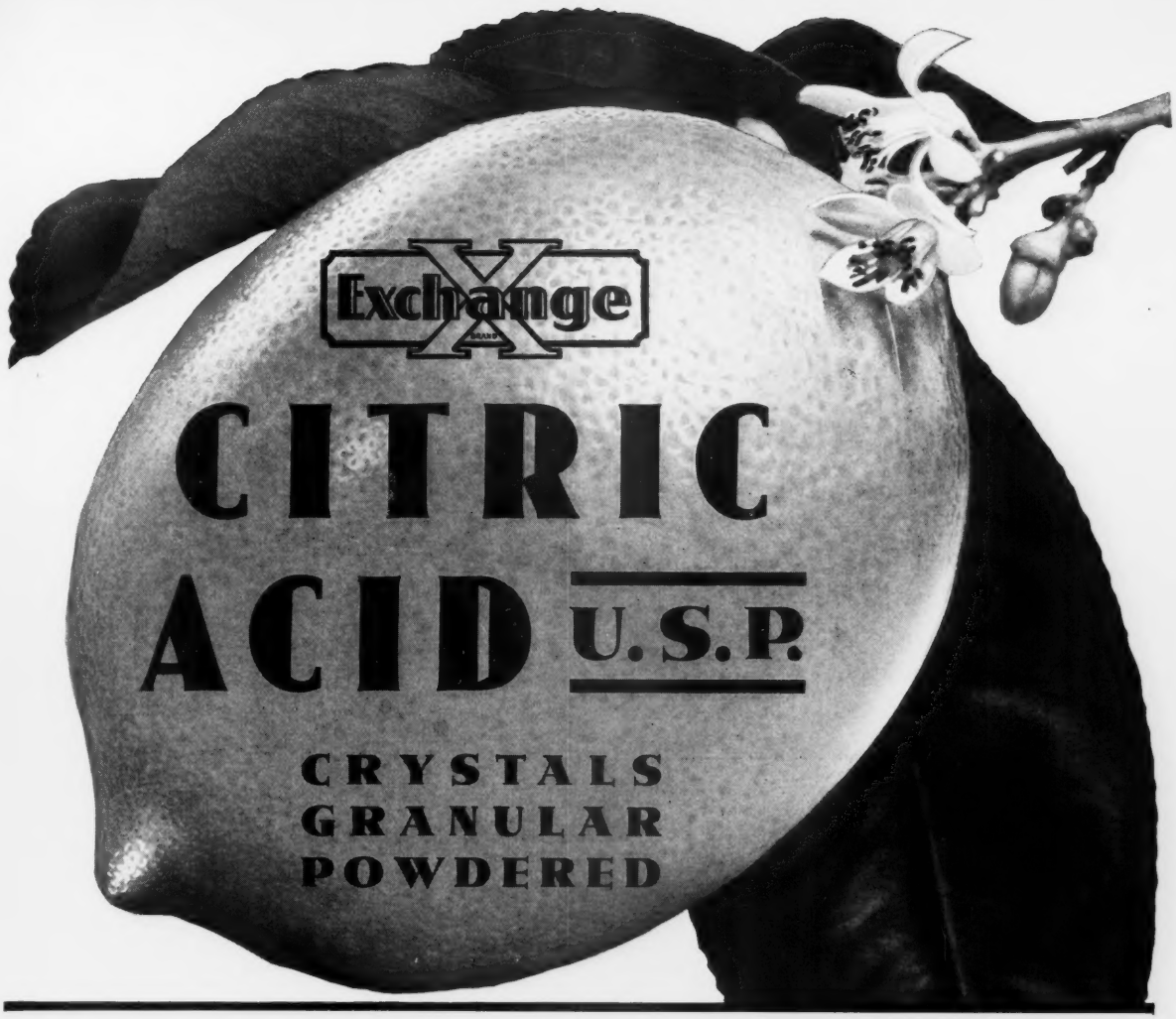
Monsanto
ST. LOUIS, U.S.A.



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by the Exchange Lemon Products Company of Corona, California. Backed by the Sunkist group of 13,200 citrus growers—largest in the world.

Immediate shipments from warehouse stocks in New York, Chicago and Philadelphia. For prices on kegs, barrels or carloads, consult any of the following distributors:

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NEW YORK QUININE & CHEMICAL WORKS, 101 North 11th Street, Brooklyn, New York.
SWANN CHEMICAL COMPANY, Birmingham, Alabama.
THE HARSHAW CHEMICAL COMPANY, Cleveland, Ohio.
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PACIFIC COAST SERVED BY

Products Department—CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California

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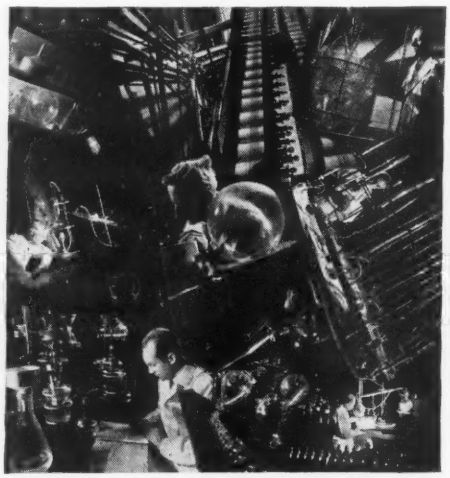
MERCK LABORATORIES

COME MANY IMPORTANT PRODUCTS TO SERVE THE NEEDS OF PHARMACEUTICAL AND TABLET MANUFACTURERS

Creosote
Creosote Beechwood
Creosote Carbonate
Guaiacol (Liquid)
Guaiacol Carbonate
Acetanilid
Acetphenetidin
Amidopyrine
Ammonium Chloride
Ammonium Carbonate
Antipyrine
Quinine Sulphate
Quinine Bisulphate
Quinine Hydrochloride
Other Quinine Salts
Cinchonine Sulphate
Cinchonidine Sulphate
Cinchona Alkaloids Mixed
Acid Acetylsalicylic
Sodium Salicylate
Salol
Methyl Salicylate
Acid Salicylic
Cinchophen
Neocinchophen
Rare Alkaloids
Silver Protein
Theophylline
Chlorbutanol (Hydrous & Anhydrous)
Caffeine
Caffeine Citrated



MERCK CHEMICALS

Used in the Treatment of Winter Ills, such as Coughs, Colds, Grippe and Pneumonia, are Particularly in Demand at This Time of Year. Adequate stocks are available for shipment and requests for information and prices will receive prompt attention.

Papaverine
Codeine Sulphate
Codeine Phosphate
Dionin (Ethyl Morphine Hydrochloride)
Morphine Sulphate
Cocaine Hydrochloride
Potassium Iodide
Phenobarbital
Phenobarbital-Sodium
Barbital
Barbital-Sodium
Strychnine
Dextrose
Dinitro Phenol
Chlorthymol
Bismuth Salts
Mercurials
Oxyquinoline Sulphate
Milk Sugar
Benzocaine
Ephedrine Alkaloid
Ephedrine Hydrochloride
Ephedrine Sulphate
Procaine
Hexamethylene
Terpin Hydrate
Potassium Bromide
Sodium Bromide
Ammonium Bromide
Strontium Bromide
Citrates

EVERY product of the House of Merck is manufactured under rigid laboratory control and must meet the Merck standard of purity and uniformity.

The chemicals listed herein are only a few of more than 3000 products available under the Merck label and guaranty.

MERCK & CO. Inc. **Manufacturing Chemists** **RAHWAY, New Jersey**

NEW YORK PHILADELPHIA ST. LOUIS ★ In Canada: Merck & Co. Ltd. MONTREAL and TORONTO

Safety comes first!

WHEN shipping drugs, cosmetics or any product contained in a bottle, your first thought is safety. And next you think of packing cost. Hundreds of firms have adopted KIMPAK because it solves both problems. KIMPAK is safe and economical.

As shown in the illustration, the bottle of Admiracion Soapless Shampoo Treatment, made by the National Oil Products Co., is first wrapped in KIMPAK and then placed in a metal edged box. KIMPAK, a soft, resilient, fluffy crepe wadding, free of dirt, grit and foreign substance, prevents rubbing and softens shocks and jolts.

The National Metal Edge Box Co. has offered to mail a free sample of this shampoo packed in KIMPAK. Just address this firm on your letterhead at Philadelphia, Pa.

For a sample of KIMPAK send coupon to Kimberly-Clark Corporation.

Kimpak
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
CREPE WADDING

NRA
WE DO OUR PART

KIMBERLY-CLARK CORP., Neenah, Wis.
Address nearest sales office: 8 South Michigan Avenue, Chicago; 122 E. 42nd Street, New York City; 510 West Sixth Street, Los Angeles.
Please send us sample and full information on KIMPAK. DCI-3

Company.....
Attention of.....
Address.....
Our product is.....

☆

IN TODAY'S TOUGH BATTLE FOR SALES

DUREZ

has helped many a package

"CLICK"

Hundreds of times during the past few years, Durez has proved its worth as an eye-appealing packaging material. Time and again drug and cosmetic packers have said . . "we'll use Durez"... and found that it paid. Far-sighted and in tune with the times, they were quick to see how much sales-appeal this good-looking material would give their packages.

Few products, no matter how fine they are in themselves, can capture today's markets if they are handicapped by an obsolete, unattractive package. Perhaps your own product is laboring under that handicap. Perhaps good design and Durez are all that are needed to send sales up where they belong. Why not let us show you what Durez has done for similar products and what it can do for yours? Write General Plastics, Inc., 352 Walck R'd, N. Tonawanda, N.Y.

DUREZ

THE MODERN MOLDING COMPOUND

The successful packages shown in the photograph illustrate 13 ways in which drug and cosmetic packers have used Durez to advantage. The limit need not be set at 13, for the undeveloped applications of this versatile material seem almost inexhaustible. Perhaps you will devise the 14th for your product!

1. SCREW CLOSURES 2. BOXES 3. CREAM JARS 4. DISPLAY STANDS 5. COMPACTS 6. LIPSTICK AND DEODORANT CASES
7. ROUGE JARS 8. POWDER CONTAINERS 9. SLIP COVERS 10. APPLICATORS 11. BASES 12. TRAYS 13. MEASURING CUPS

It's "UP FRONT"

FOR PACKAGES THAT ARE SMARTLY DRESSED!

Artmold Caps will help your products get preferred display position

RETAILERS recognize the sales appeal of smart, distinctive packages. And Armstrong's Artmold Caps will be a big help in getting your packages right in the front row on shelves and counters. These colorful, graceful closures will give a finishing touch of beauty and individuality to your package.

Available in a wide variety of stock colors and designs, it's easy for you to choose an Artmold Cap to harmonize perfectly with your bottle and label. If you prefer a special shape—a distinctive private design—Armstrong can supply that, too!

But beauty isn't all the story. Artmold Caps offer, also, the practical advantages of a tight, reliable seal—of easy removal without sticking—of resistance to corrosion or other chemical action by the package contents.

Let us send you the whole, colorful story of Armstrong's Artmold Caps and Jar Covers. No obligation. Just write Armstrong Cork & Insulation Company, Closure Division, 913 Arch Street, Lancaster, Pennsylvania.

FRONT ROW PACKAGES *that spell sales for Rose Laird toiletries. The caps are white Armstrong's Artmolds, in a popular stock design.*

Armstrong's
ARTMOLD CAPS

Citrates

Acid Citric U.S.P. Crystals, Gran. & Powd.
Acid Citric Anhydrous Powd.

Iron & Ammonium Citrate:
U.S.P. Brown Pearls (Ferric Amm. Citr.)
U.S.P. Brown Scales (Ferric Amm. Citr.)
U.S.P. Brown Powder (Ferric Amm. Citr.)
Green Pearls Green Scales
Potassium Citrate U.S.P. Gran. & Powd.

Sodium Citrate:
U.S.P. VIII Gran.
U.S.P. X Gran.
U.S.P. X Powd.
U.S.P. X Impalpable Powd.

Iron Citrate U.S.P. VIII, Pearls & Powd.
Ammonium Citrate Gran.
Bismuth & Amm. Citrate U.S.P. IX
Magnesium Citrate Sol. Powd.
Manganese Citrate Sol. Pearls N.F.
Quinine Citrate
Strychnine Citrate
and other
"Iron and" Citrates

What are your Requirements?

Check the Mallinckrodt list—or—if your problem is a special one, Mallinckrodt chemists will develop citrates to meet your needs.

For the tablet makers, there is the Mallinckrodt Iron Citrate U.S.P. VIII which will not become deliquescent.

For the manufacturers of effervescent salts and tablets, there is Mallinckrodt Citric Acid Crystals, Granular Powder and Anhydrous Powder, according to requirements.

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CHEMICAL WORKS
Makers of Fine Medicinal Chemicals

ST. LOUIS CHICAGO PHILADELPHIA NEW YORK TORONTO MONTREAL

Macy and Drug Prices

It is not surprising that R. H. Macy & Company strenuously objects to the move by General Johnson to give drug retailers at least some sort of price protection by defining cost as the open quotation on dozen lots. Myron Melville Cohen, Washington attorney for Macy, maintains that this is price-fixing of the worst sort since it prevents large buyers like Macy from passing on to the public the advantages of their carload purchases. He claims that this move is sponsored by the "manufacturer-controlled Drug Institute."

The cold fact of the matter is that Mr. Cohen might as well save his breath. For if the retail drug code authority continues to expose as many inside quantity discounts and free goods as it has in the short time it has been operating, there will not be a drug or cosmetic manufacturer in the country who will dare to continue with such a policy. Recently we heard of the discovery of a fifty gross price on a laxative of a large ethical drug manufacturer which price Macy was able to obtain.

All Mr. Cohen has to do is to note the large number of manufacturers who are now announcing definite policies of one-price-to-all and no deals, to realize that the days of price disturbers in the drug trade are definitely limited. And in answer to Mr. Cohen's contention that General Johnson's move "is part of a general scheme to force the public to pay the prices arbitrarily set by manufacturers;" and "when price competition is removed, prices invariably reach an unfairly high level," we ask Mr. Cohen to look at present day prices of the products of the Lambert Company, Colgate-Palmolive-Peet Company, Bristol-Myers Company, Gillette Razor Company, et al.

Manufacturers are interested in maintaining a free and unhampered retail drug trade so that their products will be easily accessible to the public in the establishments of those retailers who want to make a profit by selling the goods of manufacturers. They are at last appreciating the fact that quantity discounts allow their products to be used as bait by retailers who are actively in competition with these same manufacturers.

Copeland and His Bill

Senator Copeland is doing his best to become the father of new food, drug, and cosmetic legislation, and to this end he is working as hard as he can to get by a public hearing with a bill which meets the demands of the department. In answer to Charles Wesley Dunn's point of unconstitutionallity of a provision in the act which exempts only certain carriers of advertising, Senator Copeland assures the public that Mr. Dunn does not have to bother his head with these things since there are several lawyers on the Senate committee who will catch these points before the bill is presented to the Senate.

We wish that Mr. Dunn had mentioned the failure of Senator Copeland to write into the bill a provision allowing variation from the U. S. P. and N. F. To the casual observor, such a clause is in the bill. But upon further inspection it can be seen that the provision for variation under the adulteration part of the act is completely voided by the fact that no such provision is included under the misbranding part of the act. We wish that Senator Copeland would inform us what member of the committee would be supposed to catch this neat piece of work.

Perhaps Senator Copeland would explain that such provisions have properly been taken care of by the officials of the Food and Drug Administration who would be just as apt to bring to the attention of the committee inconsistencies of this type as the legal members of the committee would be to bring to light unconstitutionalities in a bill applying to an industry concerning which their knowledge is very limited.

But then perhaps we should excuse Senator Copeland since he has several serious handicaps in his attempt to write an adequate and equitable measure. First of all he is a physician—a fact which hardly gives him the disinterested viewpoint necessary. And then he is a politician obviously riding the administration band-wagon in anticipation of another nomination to run for his Senate job next November. And as an aid in obtaining votes in the coming election the Senator seems to have gotten a hold on something to which the public is responsive. Consequently we cannot exactly blame the Senator for his rough-riding, for he is not working solely from a spirit of altruism.

● ● ●

Pass a Bill

Unless manufacturers of drugs and cosmetics see to it that a new Food, Drug and Cosmetic Act is passed at the present session of Congress, the situation will only become more involved as time goes on and a public demand for revision of the act will finally demand a much more radical act than is in the interest of the public or the trade. Those long-headed individuals who are close to the situation are trying their utmost to have the Administration accept a fair and equitable measure rather than let the whole matter die at this time.

The position of reputable cosmetic manufacturers was clearly presented at the recent hearing by Hugo Mock who said that the Associated Manufacturers of Toilet Articles would rather have a federal law passed to control their branch of the industry rather than have the individual states pass laws differing in scope, and perhaps passed without as much consideration as is being given to the proposed federal act.

The fact that certain types of products might be put out of business by a new law is no reason why the whole trade should oppose any forward-looking revision. The fact of the matter is that the large majority of reputable manufacturers stand squarely behind some such measure as the McCarran-Jenckes Bill.

But if this measure cannot be passed in its entirety, then it is more than possible that a satisfactory compromise can be worked out so that the Administration will get the protection it desires for the public without thwarting progress on the part of industry.

● ● ●

New and Non-Official

Touchdown Topics

No less a person than F. P. A. is authority for the statement that the real gals who attend football games tint their fingernails with what they hope will be the winning colors.

● ● ●

More Truth than Poetry

One of James J. Montague's fans has sent in the following with the comment that he found it interesting and thought that most of New and Non-Official's readers would too. Hoping that he is right, we present

The Horrors of Science

I used to be healthy and happy,
  Untroubled by heart-galling care;
The worries I knew
Soon vanished from view
  Like bubbles that burst in the air
Iturned a calm face to the future,
  I was placid and brave and serene
Till I found out one day
That the scientist say
  A man s just a human machine.

He's controlled by his hormones and enzymes;
  If his vitamins don't do their stuff,
Or his cells go askew,
Which they frequently do,
  His pathway is sure to be rough.
If the tiniest duct doesn't function,
  If his heart doesn't steadily pulse,
Or his endocrines shirk
Any part of their work,
  There may be distressing results.

So I'm filled with alarms and forebodings;
  I frequently fret myself sick
Lest in some vital hour
My thyroids go sour
  And my thymus refuses to click.
I once was completely contented,
  But now I shall never be free
Because of my fears
Of a grind in the gears
  Of this fragile, mechanical me.

● ● ●

A Farewell to Old-Fashioned Remedies?

This department has been completely floored by the flood of new materials and methods which have been offered in what we used to consider the drug and cosmetic province. What with elk antlers being recommended for heart ailments, joining the Communist party being suggested for treatment of nervous ailments, and oatmeal being offered in the latest skin treatment, this department feels a natural hesitancy towards turning to sulphur and molasses this Spring.

Somehow it doesn't seem quite modern enough.

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Our Versatile Lawmakers

Our good Senator Copeland's medical activities have continued to expand by leaps and bounds since all the excitement started over the Food and Drugs bill.

With the addition of Nujol to his other broadcasting activities, the Senator seems to have decided that a real field exists for the medical profession in the air.

CRITIC BEAL

CRITIC DUNN

THE DRUG ACT HEARING

That the second revision of the Tugwell Bill, designated as S 2800, could not be accepted by drug and cosmetic manufacturers without considerable revision was clearly indicated by the testimony given at the public hearing before the Senate Committee on Commerce which opened on February 27 and continued through the entire week.

While the industries and trades to be affected by the passage of a new Food and Drugs Act had agreed to support the McCarran-Jenckes Bill, drafted by Charles Wesley Dunn, this bill was only considered at the hearing so far as witnesses indicated preference for it and sought to have the wording of it inserted in many parts of S 2800 as the Copeland Bill.

Those attending the hearing did not have to wait long for surprises, since the first speaker, C. C. Parlin, of the Curtis Publishing Company, who spoke as a representative of the National Publishers' Association, shocked the manufacturing interests present by telling the committee that the publishers would not oppose the bill. Instantly a deal was sensed since Mr. Parlin had spoken at length at the former hearing opposing in particular the setting up of standards for foods by the Department, claiming that only minimum standards should be set up as the setting up of various grades would deprive advertising of its function. In S 2800, Mr. Parlin got his wish, and the Department is limited to the determination of minimum standards only. Mr. Parlin hedged his remarks with statements to the effect that the publishers did not feel that they could go on record in favor of the entire bill since there are certain features of it which manufacturers are more qualified to criticize. However, after Mr. Dunn had criticized as "unfair, unjust, discriminatory, and offending to the consititution," the part of the bill which exempts from the provisions of the act the radio broadcasting systems, the publishers and the advertising agencies, without extending this exemption to buses, billboards, and other carriers of advertising, Mr. Parlin requested another appearance before the committee to tell that his committee was not responsible for the failure of the bill to exempt all kinds of advertising.

Mr. Dunn appeared as chairman of a special legislative committee of the National Drug Trade Conference, and as counsel for the American Pharmaceutical Manufacturers' Association, the Associated Grocery Manufacturers of America, the National Dog Food Manufacturers' Association, the Armand Company, the Beechnut Packing Company, and several other important individual clients.

Mr. Dunn presented a most interesting and impressive legal criticism of the bill. His general criticism was that the bill is illogically arranged, in that provisions affecting one type of violation are scattered throughout the bill, rather than being in one place. Further, said Mr. Dunn, the bill is not clear in its provisions.

As to specific criticisms, Mr. Dunn first objected to the omission from the bill of an administrative board of

PROPONENT COPELAND

PROPONENT CAMPBELL

review such as is provided for in the McCarren-Jenckes Bill. This board of five members, named by the President, is a quasi-judicial body created and acting independently of the Secretary of Agriculture and its judgment of reversal is binding upon the Secretary. Such a board, explained Mr. Dunn, is not effective to prevent the due criminal prosecution of actual violators of the act. For if the evidence sustains the administrative decision under review the board must affirm it. Such a board is only effective to prevent an unwarranted and therefore unjust criminal prosecution of a manufacturer. The extension of the act to prevent false advertising makes the provision for such a board a reasonable, just and necessary part of the revised act. This because a broad law against false or deceptive advertising, written in general terms presents an infinite number of questions which are highly technical in character and difficult and puzzling of answer, questions which involve honest divergence of opinion and are subject to honest opposite answer.

Senator Copeland crossed swords with Mr. Dunn on practically every change which Mr. Dunn advocated, only to bring forth before the entire committee Mr. Dunn's sound reasoning, and his intimate knowledge of the application of the federal laws. Mr. Dunn told the committee at great length the extreme danger of the provision that "in formulating regulations, (as to misbranding, adulteration and advertising) the findings of fact by the Secretary shall be conclusive if in accordance with law," which, he said, is fundamentally objectionable because it is practically effective to place such regulations beyond successful court challenge. Mr. Dunn showed conclusively that the committees to be created under the bill for aiding the Secretary in formulating regulations would have no power, stating that, "This provision of the bill is not an accident. It is clearly designed to cement these regulations beyond destruction. And it practically has that effect."

Mr. Dunn also criticize the provisions surrounding the naming by the President of members of the board of five which board is to limit the power of the Secretary in formulating regulations under certain parts of the bill. Mr. Dunn said that the provision that no member of the board could have any financial interest in drugs or in advertising of drugs would act to prohibit from membership on the board the best qualified men in country. Qualified men in our universities are all retained by manufacturers in a consulting capacity, he said.

Dr. James H. Beal represented the National Drug Trade Conference in criticism of the bill from the standpoint of professional pharmacy, and while his criticism of the bill was not as general as was his criticism of the original Tugwell Bill, Dr. Beal impressed the committee greatly and created the distinct impression that the bill was unworkable in its present form.

Dr. Beal's first objection was to the fact that reagents in the U. S. P. were not exempted from the definition of "drug."

Secondly, the word "formula" used in describing adulterated official drugs is not proper since the manufacturing pharmacist can not work in the small quantities indicated in the U. S. P. and N. F. Dr. Beal thought this should be chemical or graphic formula. Dr. J. P. Snyder, of Norwich Pharmacal Company, testifying the next day on other matters, stated that he thought this should be ingredient or working formula, since the ingredients specified in the U. S. P. or N. F. should be required, but not the specific size batches given. As an example of what might occur if the specific ingredients were not required, Dr. Snyder showed to the committee a bottle of a liquid which met all the U. S. P. tests for fluidextract of cascara, but which contained no cascara, being made with buckthorn. He likewise showed a bottle of material which met all the tests for powdered nux vomica, but which contained no

nux vomica, consisting of exhausted ginger in which had been mixed in proper proportion the alkaloids of nux vomica, namely, brucine and strychnine.

Dr. Beal criticized the variation clause on page 6, lines 6-9 because it does not include "description", but only strength, quality and purity.

The palliation clause of the bill, section 8 (a), is very indefinite in its wording, according to Dr. Beal, who asked that the wording of the McCarran-Jenckes Bill be substituted.

With respect to the section 8 (b), which requires a warning statement on the labels of products containing narcotics or hypnotics to the effect that the product may be habit-forming, Dr. Beal objected to the all-inclusive phrase, "or any other narcotic or hypnotic substance", asking its elimination and stating that all products should be named in the bill. He also questioned the wisdom of placing this warning on the label and thus educating people to the pleasant effects of habit-forming drugs with which they are not acquainted. When questioned whether he thought it better to leave the warning off and thus protect the weak who might become addicts, or to leave the warning on and thus protect the strong, Dr. Beal stated that he really did not know, but if pressed for an answer he thought it best to protect the strong. At any rate he would not under any circumstances have the statement placed upon physicians' prescriptions.

Dr. Beal asked that section 8 (c) 4 be striken out since it was unnecessary, and should not be effective in the matter of natural impurities. Dr. J. W. Harrison, of LaWall & Harrison, later clarified this point by asking that tolerances be established for natural impurities in crude products such as arsenic in botanicals.

Dr. Beal pointed out that the Copeland Bill provides for a committee on foods consisting of seven members, two of which are from the food manufacturing-processing industry, while the committee on drugs consists only of five members, none of which can have any financial interest in any phase of the drug business. He asked that the drug committee likewise be extended to seven, of whom two should be from the industry.

Section 9 (c) which prohibits the advertising to the public of products for named diseases was criticized by Dr. Beal who pointed that inclusion of "bone diseases" in the paragraph would prevent advertising to the public of cod liver oil as a treatment for rickets. Likewise he questioned the inclusion of "dental caries or erosion," and of "periodontal diseases." Dr. Copeland informed Dr. Beal that these were placed in the bill at the request of the dental profession, to which Dr. Beal replied, "I am not surprised," indicating that if you could not obtain antiseptics and dentifrices to at least partially control these disorders, you would certainly have to see your dentist twice a year. Dr. Beal questioned the wisdom of forcing a person subject to epileptic seizures to go to a physician every time he wants a saline and Luminal or bromides, which he said had been the treatment for this disease for a great many years. He also discussed goiter, indicating that this would prevent producers of iodized salt from making any statements regarding the advantages of their product which is required by law in many states removed from the seaboard.

With regard to the Permit Factories provision, Dr. Beal discussed the possibility of graft on the part of inspectors who might be bribed by one manufacturer to secure secrets from the plant of another manufacturer. He thought that the Department should be required to swear out a warrant.

Section 16 (c) which states that the court may allow the defendant to obtain a sample of the article seized, Dr. Beal stated that the defendant should be entitled to a sample as a matter of right and should not have to rest upon the discretion of the court. The Chairman, Senator Stevens agreed to this.

Dr. Beal concluded with the remark that in criticizing S 1944, the original Tugwell Bill, all he had to do was aim in the general direction and he was sure to hit something wrong, while with S 2800, he had to pick his targets.

Dr. J. P. Snyder, of the Norwich Pharmacal Company, clearly indicated that while the bill contained a variation clause under section 4 (b) which covers adulteration, this clause is nullified by section 8 (f) which covers misbranding and which contains no provision allowing variation in official products. Therefore, the bill actually contains no variation clause as it is written. Dr. Snyder impressed the committee with the importance of having a variation clause, telling of the important improvement made in diphtheria antitoxin under this provision in the present bill.

Professor Harrison F. Smith, of the University of Pennsylvania, criticized section 8 (i) and (j) covering antiseptics, disinfectants and germicides. He objected to a specific test being written into the law as this created a static condition in a law controlling a progressive science. This static condition in the bill is the requirement that these products be compared with the action of a one to eighty dilution of phenol used by a standard testing method for ten minutes at thirty-seven degrees centigrade.

Professor C. B. Jordan, speaking for the American Association of Colleges of Pharmacy, qualitative asked for disclosure on the label of all therapeutically active ingredients. He criticized the use of the term "blood poisoning" as a disease, stating that these names in the bill should be definite. Senator Copeland suggested that this be changed to "septicaemia." Professor Jordan also stated that pharmacy should be represented on the committee on drugs.

Harry B. Thompson, counsel for the Proprietary Association criticized the bill in a most interesting manner. On the provision which requires that the

(Continued on page 264)

COMPARING ANTISEPTICS

Thirty-five commonly used antiseptics are subjected to four different methods of testing, including a new skin sterilization method newly devised.

Various methods have been used to appraise antiseptics, the most common method being the F. D. A. method, which is the one devised and used by the Food and Drug Administration in its regulatory work. In 1931, Dr. A. W. Allen and Dr. I. S. Wright reported in the Journal of the A. M. A. on an original method now called the A-W method. In addition, since penetration of antiseptics is of prime importance, there is used the penetration method of L. C. Himebaugh.

Using these three methods, and using in addition a new skin sterilization method, Dr. John J. Moorhead, Dr. A. W. Allen, and M. Patricia Edgerly, of the New York Post Graduate Medical School and Hospital, Columbia University, New York, have in the February number of the "American Journal of Surgery" appraised 35 commonly used antiseptics from the viewpoint of their usefulness to the physician.

The F. D. A. method was followed exactly, except that three time exposures of 5, 10 and 15 minutes were arbitrarily selected for each organism and each antiseptic; each individual experiment was not controlled with phenol, and no phenol coefficients were determined. This method was used because it is the method upon which rests the large amount of advertising of practically all antiseptics. In the results, plus indicates growth; minus indicates no growth.

The *A-W* method was used because it determines the effectiveness of antiseptics in the presence of massive infection and contamination, where the organisms were present in large numbers, actively growing, and readily available to the action of the antiseptic substance. In the report on this method, *A* represents the 24 hour agar slant culture. *B* is an immediately innoculated agar slant culture; the massive infection and the recent contamination respectively. The figures refer to the time of exposure of the organisms to the antiseptic. Plus indicates positive growth. Minus indicates no growth.

The penetration method of Himebaugh was used because an antiseptic, to be effective, must be stable in the presence of blood and serum and other organic matter encountered in infected wounds, and must be able to reach the recesses and microscopic sinuses wherein bacteria lurk and develop. To reach these spaces, it must be able to penetrate slough, cellular debris, and serum. The figures given under this test are the number of millimeters which the antiseptic penetrates solidified serum-agar in five minutes. The minus sign signifies no evident penetration.

The skin sterilization method is said by the authors to be of the greatest, and most directly practical importance to the clinician. The other tests respectively demonstrated that certain substances under ideal conditions will inhibit bacterial growth; that fewer, in the presence of large numbers of organisms will inhibit growth; that many lack the ability to penetrate serum-agar. The figures (1-5) in the skin sterilization method indicate the frequency with which this test was done. Five determinations were done on each antiseptic except where noted. Plus indicates growth; minus signifies no growth.

Skin Sterilization Method

This procedure requires explanation, and is herewith described. With the antiseptic or skin disinfectant to be tested, paint the area about the metacarpophalangeal joint. Immediately dip the finger in a vessel containing the same antiseptic or skin disinfectant, so that the solution covers the entire finger, and overlaps the previously painted joint. Withdraw the finger after complete immersion in the solution. The time of immersion is not to exceed 1 minute. Allow the finger to dry. Immediately thereafter, pull on a dry sterile rubber glove, two sizes larger than that ordinarily required by the subject. Just distal to the metacarpophalangeal joint, apply a rubber band just sufficiently tight to hold the glove in apposition with the finger at this junction, but not sufficiently tight to impede circulation. Immediately plunge the gloved hand into a basin of warm (105°F) 1:1000 solution of mercuric chloride. Maintain the gloved hand in this solution for five minutes. At the expiration of this period of time, withdraw the gloved hand, and, insert between the rubber of the glove and the skin of the finger tip a sterile, 22-25 guage hypodermic needle attached to a sterile 2 c. c. hypodermic syringe loaded with 1 c. c. of sterile nutrient broth[1]. Inject and withdraw this nutrient broth solution several times. One tenth c. c. of this broth wash is added to 10 c. c. of sterile nutrient broth and incubated 24 hours. 0.1 c. c. of this incu-

'F.D.A' METHOD

	S. AUREUS			S. ALBUS			S. HMLYTUS			B. TYPHOSUS		
	5	10	15	5	10	15	5	10	15	5	10	15
ALCOHOL 80% ETHYL	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL 70% ETHYL	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL 60% ETHYL	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL ISOPROPYL	−	−	−	−	−	−	−	−	−	−	−	−
SILVER NITRATE 2%	−	−	−	−	−	−	−	−	−	−	−	−
SILVER NITRATE 1%	−	−	−	−	−	−	−	−	−	−	−	−
BENZINE	+	+	+	+	+	+	+	−	−	+	−	−
GASOLINE	+	+	+	+	+	+	+	+	+	+	+	+
ETHER	+	+	−	+	+	+	−	−	−	−	−	−
TINCTURE GREEN SOAP	−	−	−	−	−	−	−	−	−	−	−	−
HYDROGEN PEROXIDE	−	−	−	−	−	−	−	−	−	−	−	−
MERCURIC CHLORIDE O. 1%	−	−	−	−	−	−	−	−	−	−	−	−
MERTHIOLATE 1-1000 SOL.	−	−	−	−	−	−	−	−	−	−	−	−
MERTHIOLATE 1-1000 TINCT.	−	−	−	−	−	−	−	−	−	−	−	−
MERCUROCHROME 2% AQ'US	−	−	−	−	−	−	−	−	−	−	−	−
MERCUROCHROME 2% A-A-A	−	−	−	−	−	−	−	−	−	−	−	−
METAPHEN 1-500	−	−	−	−	−	−	−	−	−	−	−	−
METAPHEN 1-2500	−	−	−	−	−	−	−	−	−	−	−	−
OXY QUINOLINE SULFATE 1%	−	−	−	−	−	−	−	−	−	−	−	−
PHENOL 2%	−	−	−	−	−	−	−	−	−	−	−	−
LIQ HEXYL RESORCINOLIS ST 37	−	−	−	−	−	−	−	−	−	−	−	−
NEUTRAL ACRIFLAVINE O 1%	−	−	−	+	+	−	−	−	−	−	−	−
PICRIC ACID 1%	−	−	−	−	−	−	−	−	−	−	−	−
LIQUOR CRESOLIS COMP 2%	+	−	−	−	−	−	−	−	−	−	−	−
CLYMOCOL	−	−	−	−	−	−	−	−	−	−	−	−
CLYMOCOL 1-50	−	−	−	−	−	−	−	−	−	−	−	−
IODINE 7% TINCTURE	−	−	−	−	−	−	−	−	−	−	−	−
IODINE 3.5% TINCTURE	−	−	−	−	−	−	−	−	−	−	−	−
IODINE AQUEOUS SOL 5%	−	−	−	−	−	−	−	−	−	−	−	−
IODINE (DAVIS)	−	−	−	−	−	−	−	−	−	−	−	−
IODINE ISOTONIC SOL	−	−	−	−	−	−	−	−	−	−	−	−
ZONITE 1-2	−	−	−	−	−	−	−	−	−	−	−	−
ZONITE 1-4	−	−	−	−	−	−	−	−	−	−	−	−
CHLORAZENE	+	−	−	+	−	−	−	−	−	−	−	−

bated broth culture is mixed with 10 c. c. of melted nutrient agar[1] and poured into a petriplate. This again is incubated 24 hours. Plates showing no growth are reported as negative, or as demonstrating skin sterilization in the particular case under investigation. Plates showing growth are interpreted as demonstrating lack of skin sterilization.

The rubber band application prevents leakage of the solution back onto the non-medicated skin. If the glove used is too small, it is impossible to insert the full 1 c. c. of broth without forcing the solution beyond the rubber band. Placing the hand in the hot solution of bichloride of mercury causes the hand to sweat, bringing to the surface sweat, and contaminants of the skin and pores. The bichloride solution is used because it is antiseptic itself, and prevents contamination of the exterior of the glove.

It has been demonstrated repeatedly that an insufficient amount of antiseptic is carried over in the washings of the gloved hand to subculture tubes to be in bacterostatic concentration.

With but four exceptions, all of the drugs used in this study were received from the hospital pharmacy. Those of the proprietary type were obtained in the original, unopened packages; while the galonical were made up according to the formulae noted. Below is appended the list of the preparations used, with their respective dilutions noted.

The authors summarize as follows: "As yet there has been devised no laboratory procedure which wholly supplants clinical experience. The in vitro bacterostatic actions can not be translated into in vivo terms. A wound, an infection is a dynamic process; the laboratory is largely of a static nature; it can be an indication, not a final opinion. A product failing to demonstrate bacterostatic properties in vitro, will not find its way into a large clinical experience; and a splendid laboratory record does not guarantee an equally brilliant clinical performance of the antiseptic.

"Often the physician who uses the several available antiseptic products is at fault in his application of the preparation. This may be the cause of many of the unfavorable results noted in connection with the use of some of the antiseptics in common usage today. He must first understand the active, dynamic, pathological processes at which his medication is directed. Even with the understanding of the problem at hand, he may and often does do more harm by medication of the wound than all the germs present would do under ordinary circumstances. Through the use of too strong, or too often applied antiseptic he may destroy living and reparative tissues, thereby producing delayed heal-

SKIN STERILIZATION

	1	2	3	4	5
ALCOHOL 80% ETHYL	−	+	+	+	+
ALCOHOL 70% ETHYL	−	+	+	+	+
ALCOHOL 60% ETHYL	−	+	+	+	+
ALCOHOL ISOPROPYL	−	+	+	+	+
SILVER NITRATE 2%	−	−	−		
SILVER NITRATE 1%	−	−	−		
BENZINE	+	+	+	+	+
GASOLINE	+	+	+	+	+
ETHER	+	+	+	+	+
TINCTURE GREEN SOAP	+	+	+	+	+
HYDROGEN PEROXIDE	+	+	+	+	+
MERCURIC CHLORIDE O. 1%	−	+	+	+	+
MERTHIOLATE 1:1000 SOLUTION	−	−	+	+	+
MERTHIOLATE 1:1000 TINCTURE	−	−	−	−	−
MERCUROCHROME 2% AQUEOUS SOL.	−	−	−	+	+
MERCUROCHROME 2% ACETONE-ALCOHOL-AQUA	−	−	−	+	+
METAPHEN 1-500	−	−	+	+	+
METAPHEN 1-2500	−	+	+	+	+
OXY-QUINOLINE SULFATE 1% SOL.	−	−	−	−	+
PHENOL 2%					
LIQ. HEXYLRESORCINOLIS 'S.T.37'	−	+	+	+	+
NEUTRAL ACRIFLAVINE 0.1% SOL.	+	+	+	+	+
PICRIC ACID 1% SOLUTION	+	+	+	+	+
LIQUOR CRESOLIS COMPOUND 2%					
CLYMOCOL	−	−	−	+	+
CLYMOCOL 1-50	−	+	+	+	+
IODINE 7% TINCTURE	−	−	−	−	+
IODINE 3.5% TINCTURE	−	+	+	+	+
IODINE AQUEOUS SOLUTION 5%	−	+	+	+	+
IODINE (DAVIS)	−	+	+	+	+
IODINE ISOTONIC SOLUTION	−	−	−	−	−
ZONITE 1-2	+	+	+	+	+
ZONITE 1-4	+	+	+	+	+
CHLORAZENE	+	+	+	+	+

ing on the ulcerated area, and unnecessary slough, or even systemic reactions following the absorption of the toxic products of the tissue degeneration. An agent which kills or inhibits the bacteria present in the wound, but does not at the same time destroy tissue, nor interfere with the natural body defensive mechanism, is far more desirable than one which kills all the organisms present, and at the same time accomplishes the destruction of the tissues with which it comes into contact.

"An infection occurs only when the contaminants, present in every wound, are in sufficiently large numbers, or of sufficient virulence to overcome the local defensive processes. Therefore, a mechanical cleansing of the locally contaminated, or later infected area, and the judicious application, probably but once, of a mild antiseptic is sufficient. We do not recommend nor hold any brief for any one antiseptic. Throughout the country, many different skin disinfectants are used in the preoperative preparation, and an even larger number of antiseptics are applied in the treatment of wounds. There are clinical differences between many of these antiseptics. And yet the morbidity rates are not widely divergent. Which brings us to the realization that whether an infection will develop or not depends largely on the number of organisms present and their relative virulence; the resistance of the host; and least of all on the antiseptic used."

	Penetration 5 oz. Serum-Agar Cup		
	S Aureus	*S Albus*	*B Typhus*
Alcohol 8 oz. Ethyl	..	..	..
Alcohol isopropyl	..	..	..
Silver Nitrate 2%	..	..	..
Silver Nitrate 1%	..	..	..
Tincture Green Soap	..	1	..
Hydrogen Peroxide	2	6	4
Mercuric Chloride 0.1%	..	..	..
Merthiolate 1-1000 Sol.	3	1	3
Merthiolate 1-1000 Tinct.	9	5	5
Mercurochrome 2% Aq'us	1	2	1
Mercurochrome 2% A. A. A.	1	1	1
Metaphen 1-500	..	..	..
Metaphen 1-2500	..	..	..
Oxy Quinoline Sulfate 1%	8	12	10
Phenol 2%	..	..	..
Liq. Hexylresorcinolis S. T. 37	..	..	..
Neutral Acriflavine 0.1%	2	..	2
Picric Acid 17	..	..	..
Liquor Cresolis Comp 2%	..	..	..
Clymocol	1	2	2
Clymocol 1-50	1	1	1
Iodine 77. Tincture	..	2	..
Iodine 3.5 7 Tincture	4	4	3
Iodine Aqueous Sol. 57	4	4	3
Iodine "New" (Bohlander)	1	2	..
Iodine Isotonic Sol	3	4	4
Zonite 1-2	..	..	..
Zonite 1-4	..	..	..
Chlorazene	..	..	..

'A-W' METHOD

	STAPH'CUS A			AUREUS B			STAPH'CUS A			ALBUS B			STREPT. A			HEMOLYTICUS B			BACILLUS A			TYPHOSUS B		
	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15
ALCOHOL 80% ETHYL	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL 70% ETHYL	+	+	+	−	−	−	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL 60% ETHYL	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
ALCOHOL ISOPROPYL	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
SILVER NITRATE 2%	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
SILVER NITRATE 1%	+	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
BENZINE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
GASOLINE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
ETHER	+	+	+	+	+	+	+	+	+	+	+	+	−	−	−	−	−	−	+	−	−	−	−	−
TINCTURE GREEN SOAP	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
HYDROGEN PEROXIDE	+	+	+	+	+	+	+	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−
MERCURIC CHLORIDE 0.1%	+	−	−	−	−	−	+	+	+	−	−	−	−	−	−	−	−	−	+	−	−	−	−	−
MERTHIOLATE 1-1000 SOL.	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	+	+	−	−	−	−
MERTHIOLATE 1-1000 TINCT.	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
MERCUROCHROME 2% AQ'US	+	+	+	+	−	−	+	+	+	+	−	−	+	−	−	−	−	−	+	+	+	−	−	−
MERCUROCHROME 2% A A A	−	−	−	−	−	−	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
METAPHEN 1-500	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
METAPHEN 1-2500	+	+	+	−	−	−	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
OXY QUINOLINE SULFATE 1%	+	+	+	+	+	+	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
PHENOL 2%	+	+	−	+	+	−	+	+	+	+	+	+	−	−	−	−	−	−	+	−	−	−	−	−
LIQ HEXYLRESORCINOLIS ST.37	+	+	+	+	+	+	+	+	+	+	−	−	−	−	−	−	−	−	+	+	−	−	−	−
NEUTRAL ACRIFLAVINE 0.1%	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
PICRIC ACID 1%	+	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
LIQUOR CRESOLIS COMP 2%	+	−	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
CLYMOCOL	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
CLYMOCOL 1-50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IODINE 7% TINCTURE	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
IODINE 3.5% TINCTURE	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
IODINE AQUEOUS SOL. 5%	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
IODINE DAVIS	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
IODINE ISOTONIC SOL.	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
ZONITE 1-2	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
ZONITE 1-4	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
CHLORAZENE	+	+	+	+	+	+	+	+	+	+	+	+	+	+	−	+	−	−	+	+	+	−	−	−

TRADE-MARKS IN FOREIGN COUNTRIES

By Lenore B. Stoughton

With the depression came a sharp decline in foreign trade in drugs and cosmetics. Manufacturers generally have been beset with the problem of whether or not defense of foreign trade-marks is worthwhile.

Economic conditions throughout the world have in many cases made proper protection of trade-marks in foreign countries only a burden to American business. In most foreign countries registration and renewal of a mark are comparatively inexpensive. The exporter could formerly see that the expense was justified by the orders that came in and the natural hope that sales in a particular country could be stimulated and increased as his goods and mark became better known.

Then came the time when people everywhere were suddenly poor. Export orders fell off, and gradually it became more and more difficult to make a profit on the goods that were sold. The thought of trying to introduce any new product in a foreign market was practically abandoned. That eliminated the expense of registering new marks, but there was still the problem of keeping old marks alive—in some countries by payment of a periodic tax, in some by renewal applications or proof of renewal of home registrations.

Worse, as the amount of American goods in foreign markets gradually decreased, the natural and probably inevitable result was that local infringements began to spring up and flourish. They were sold by every variety of fair and unfair competition. They had a great advantage in the matter of price. In many countries they could be easily passed off because purchasers were largely illiterate peasants or natives who bought by the color of the package or the picture on it rather than by name.

Thus the American trader in foreign markets is faced with a serious problem. Shall he spend hundreds of dollars—perhaps more—on a suit against an infringer to protect a trade-mark and a practically non-existent business? Or shall he ignore the infringement, save his cash, and run the risk of losing any possibility of future protection in that country and future business there under his trade-marks?

In theory, the decision should always be to bring the suit and protect the trade-mark, whether it has any present income-producing value in that country or not. In practice, many exporters have been obliged to say: "It will be years before any sales in that country could possibly justify the expense. It might never be justified. We cannot afford to spend so much money to preserve so doubtful a market for our goods."

It will be interesting to observe, as the years go by and world markets improve, who has been most wise—the man who is doing his best to protect his marks, or the man who is waiting and trusting to luck. Will the expense of protection during the lean years be repaid over and over in the future by rising demand and growing export trade? Will the man who steps out of the foreign market now perhaps find that infringements and imitations die out (as they sometimes do) and that when he is ready he can step back in again and build up his rights and his trade once more?

It is hard to say what the outcome will be; but it is safe to say that foreign trade-mark matters often deserve more thought and attention than they get from the American trader. In entering a new foreign market, certain precautions should always be taken.

Rules and requirements in the different countries vary so widely that no uniform rule can be laid down. In some countries, as here, trade-mark rights depend only upon use. There registration cannot be procured until use has been established, and there is sometimes an advantage in delaying an application for registration until the use has been very widely and well established. This is especially true in British countries such as Canada and Australia.

There are many other countries (notably in South America) where no protection is accorded to a trade-mark unless it is registered, and where registration of a mark is granted to the first claimant without any showing of use or even of intent to use. These are "pirate countries"—so called because a local trader may hear of a valuable mark or note the first appearance of goods bearing it, and promptly register it before the unsuspecting owner has got around to doing so.

The registrant is then in position to demand that local sale of goods under *his* mark be stopped until the trader has come to some agreement with him—some-

times by purchase of the registration at a generous figure, sometimes by the grant of an exclusive agency to the registrant for that country. The unfortunate victim must choose one of three alternatives: he may withdraw from the market; he may reach some agreement with the registrant; or he may choose a new mark for that country, with the consequent expense of new packages and labels and the loss of the prestige which his original mark might have had.

Very often all sales of an American product in a particular country are handled through a local distributing agent who is the middleman between the American manufacturer and the foreign retailer. In many countries this agent can register the trade-mark in his own name. Sometimes he does it without the knowledge of the manufacturer. He should not be allowed to do so, however, and if he does, an assignment to the manufacturer should be arranged as soon as the registration is discovered.

The agent may point out that there are many advantages to having the registration in his name—chiefly, that he is on the spot where he will learn of and may immediately conform to any new requirements, and where he can take prompt and effective steps to quash an infringement as soon as it appears, without the long delay often involved in writing to the manufacturer and waiting to receive instructions and proper authorization to proceed.

The other side of the picture is that the manufacturer is then at the mercy of the agent as to sales policies and conduct of the business. Even the prosecution of infringers lies within the will of the agent and cannot be directed by the manufacturer. Moreover, the agency cannot be terminated and the business placed under other direction unless the agent can be persuaded to transfer the registrations. The persuasion is usually accomplished by a payment in cash—in reality, the purchase of one's own marks.

It has been sought to obviate this difficulty by securing an agreement from the agent to transfer the marks to the manufacturer at any time upon demand. If the agent chooses not to keep his agreement, however, recourse must be had to the courts, under the often serious disadvantages to the American of being far away and of being an alien in controversy with a native of the land. One American concern, which had considered itself fully protected in Greece by such an agent's agreement, was forced to spend more than two years of business inactivity in that market, and several thousands of dollars, to enforce the agreement and recover its marks; and its experience was not an unusual one.

There are various details which must be considered anew in connection with each export country. In some there are strict requirements that the mark as used shall conform *exactly* to the registration. In some the distinctive color of a label or package must be protected by registration before redress on that ground can be had

(*Continued on page 300*)

Industry's Books

I Know Just the Thing for That, by Dr. J. F. Montague, 265 pages, John Day, New York, $2.00 net.

Our old friend Dr. Montague is back with another of his entertaining books on human ailments. This one is dedicated to "Patients without doctors, and Doctors without patience" and as its title indicates, discusses those ailments for which there are more doctors than patients. "As witness thereof," Dr. Montague says, "I ask you to bring to mind the host of friends who are ever ready with gratuitous advice, the grandmothers of the nation with their old-fashioned remedies, and the billboard, magazine and radio advertisers with their myriad of suggestions. Indeed, every advertising agency seems to feel qualified to traffic in health advice." With this pronouncement, we advise reading Dr. Montague's book. He writes for the layman, more entertainingly than any medical man we know.

The Principles and Practice of Marketing, by R. Simmat, 247 pages, Isaac Pitman & Sons, New York, $3.00 net.

A scientific study of marketing which is especially recommended for its collection of practical marketing facts and for its emphasis on the need of careful and comprehensive market analysis as a basis for sound advertising and selling plans. In addition to the statistical data, the chapters on trade-marks, packages and sampling are especially interesting.

Money Changers vs. the New Deal, by Harry Elmer Barnes, 150 pages, Ray Long & Richard R. Smith, Inc., New York, $1.00 net.

Inflation is analyzed by Mr. Barnes in a simple, understandable manner and with his usual provocative style. His study of money is a popular one and he points out the possibilities of managed currency, the part that silver plays, and the effects of inflation on wages.

Industrial Health Service, by Leverett D. Bristol, 170 pages, Lea & Febiger, Philadelphia, $2.00 net.

The purpose of this book is to present the more important facts and problems of industrial health from the standpoint of the employer and supervisor as well as the worker. It endeavors to point the way to a well-rounded health program and should appeal to all of these groups.

Pharmacopoeia of the Manchester Royal Infirmary, 125 pages, published by Henry Blacklock & Co., Manchester, England.

In addition to the standards, the twelfth edition of this work carries formulas for children's preparations, a chapter on anesthetics and other addenda.

Distribution Today, by O. Fred Post, 335 pages, McGraw-Hill Book Co., New York, $3.00 net.

The marketing editor of "Business Week" presents information for the business man who wishes to analyze his distribution system and to select those agencies and policies that will reduce costs and improve results. The chapters on pricing policies and price fixing will be of especial interest to the manufacturer in this field.

Our Common Enemy—Colds, by the editors of "Fortune," 102 pages, Robert M. McBride & Co., New York, $1.00 net.

The facts about colds and particularly about the preparations made by our industry for treating colds. Many are the names and products mentioned in this interesting survey. Both those who read this originally in the pages of "Fortune" and those who did not, will want this little volume to keep and study.

Inventions, Patents and Trade-marks, by Milton Wright, 310 pages, McGraw-Hill Book Co., New York, $2.50 net.

This is the second edition of this manual of practical information on the protection and promotion of these properties. This volume tells the manufacturer just what he wants to know and needs to know about getting and keeping exclusive rights to his property.

DEHUMIDIFICATION

By Jason L. Russell

Moisture conditions of the atmosphere must be closely controlled when effervescent salts are being made and packaged. Mr. Russell tells how this can be done.

The quality of granular effervescent salts is so dependent upon the atmospheric conditions in which they are mixed, fused and dried, that a means which provides practically uniform atmospheric conditions will be interesting. This will be true especially, if that means can be had and maintained at a reasonably low cost.

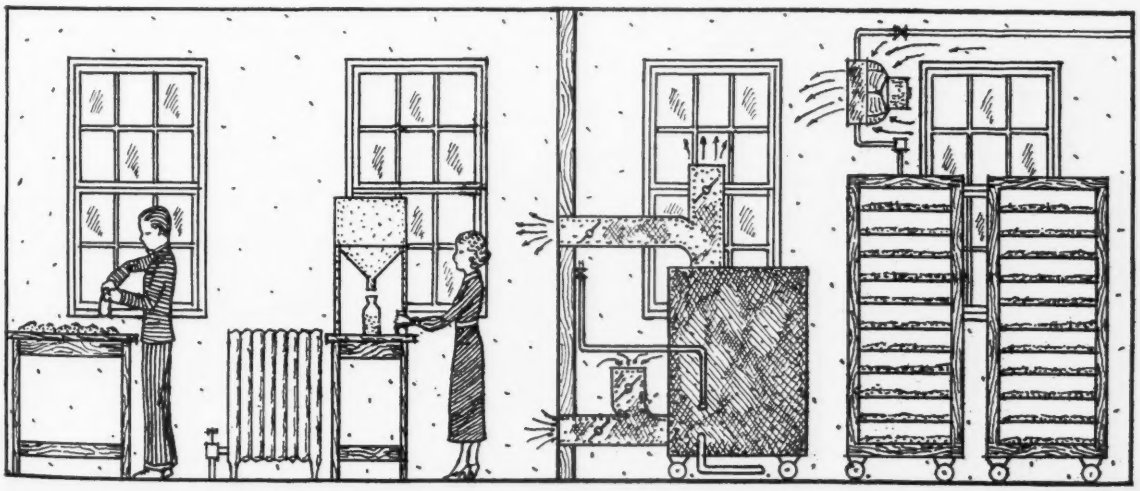
The common method of drying granular effervescent salts consists of placing the salts on trays, within a heated enclosure, evaporating moisture from the salts, removing the air containing its portion of the absorbed moisture from the enclosure, and replacing this air with another air of a lower humidity and from a separate source.

The salts should be spread out in a thin layer on trays so as to allow the air to contact a large proportion of the surface. The trays are usually arranged in racks, mounted on casters, and of a size that will conveniently pass through doors.

The enclosure should be as air-tight as possible and insulated against the transfer of heat. The rate of evaporation and the power of air to hold moisture are increased by temperature. However, the temperature of the enclosure is limited by the nature of the material being dried. Efflorescent salts lose their vapor water of crystallization when heated above the critical temperature. For one preparation the best results have been produced at temperatures between 45° C. and 65° C. with and ideal condition of 55° C.

The amount of moisture removed from the enclosure is dependent upon the amount of air replaced and the difference in the air condition between the enclosure and the source from which the air is drawn. If this source be outside air, then the rate of drying will be limited by atmospheric conditions, being lower in seasons of high humidity and higher in seasons of low humidity.

The apparatus for using this common method of drying consists of a fan, heating coils, air ducts and a filtering device. The cost of operation consists of the power required to circulate the air, the heat required to offset the losses from the enclosure, and the heat



required to supply the difference in heat content between the air entering and the air leaving the enclosure, including the heat necessary to vaporize the moisture, and the specific heat required to raise the temperature of all of the materials up to the temperature of the enclosure.

About ten months ago we installed a new method for drying salts at the C. E. Jamieson and Company, Detroit, Michigan, which consists in placing the salts on trays within a heated room, evaporating moisture from the salts, and removing the moisture from the air by recirculating the room air through a hygroscopic dehydrator.

The apparatus necessary for this recirculating method consists of heating coils or unit heaters and the dehydrator. The cost of operation consists of the power required to recirculate the air, the heat required to offset the losses from the enclosure, the specific heat required to raise the temperature of all of the materials up to the temperature of the room and the cost of operating the dehydrator.

This new method is independent of atmospheric conditions and can operate at temperatures either below or above normal. The room conditions are modified by the amount of leakage of air through the enclosure.

This new method for drying the salts proved so successful that the adjoining room in which the salts are filled has also been conditioned. It must be kept in mind that the temperature of this room is at considerable variance to that of the drying room, the average temperature being 22° C. The same dehumidifying unit is used for both rooms. This is accomplished by recirculating the air from the drying room or the filling room through control of hand-operated dampers as shown in the diagram.

The time required for drying has been considerably reduced and drier materials have been obtained than has been possible when drying by the common method as previously described. The temperature of the room has varied from 50° C. to 60° C. and the relative humidity has been as low as 5 per cent. It is possible to produce still drier air, at an increased cost if necessary for special processes; however, this simple arrangement is sufficient for the purposes intended.

The two rooms being conditioned are each about twenty feet square with a ceiling height of eleven feet. The rooms are not air tight, but in order to reduce heat loss, the walls are built of two insulating boards with an air space of about 2 inches between. There is some horizontal air movement actuated by the unit heater and vertical air movement by the dehydrator unit, but the conditions in general are those of still air. The dry room has been used for drying many kinds of materials.

The dehydrator is a new type of apparatus which was built by the firm of Kaufman-McKinney, 4019 Devonshire Road, Detroit, Michigan, and who also supply the hygroscopic material for its use. This dehumidifying unit dehydrates about 600 cubic feet of air per minute,

(*Continued on page 300*)

Perfumer's Shelf

DUE to recent demand by the public for flowery scents, phenylacetic aldehyde has become of added importance to the perfumer. Because of its intense honey-Rose-like odor resembling hyacinth, it is indespensable in producing this type of odor and can be used up to 25% in the absence of cinnamic alcohol, and, if the latter is used, a less quantity is required. It is also a valuable ingredient in rose, lilac, lily of the valley, cyclamen, and acacia, as well as in many of the light fancy popular bouquets.

In the presence of acids, alkalies, air or light, phenylacetic aldehyde rapidly polymerizes, losing its odor, and therefore becoming useless. For this reason it can be used in only small quantities in soap, and then only when the soap is a very neutral milled product. Should the perfumer of soaps require the characteristics imparted by this product, he could closely approximate it by using phenylacetaldehyde-d-methyl acetal because of its greater stability.

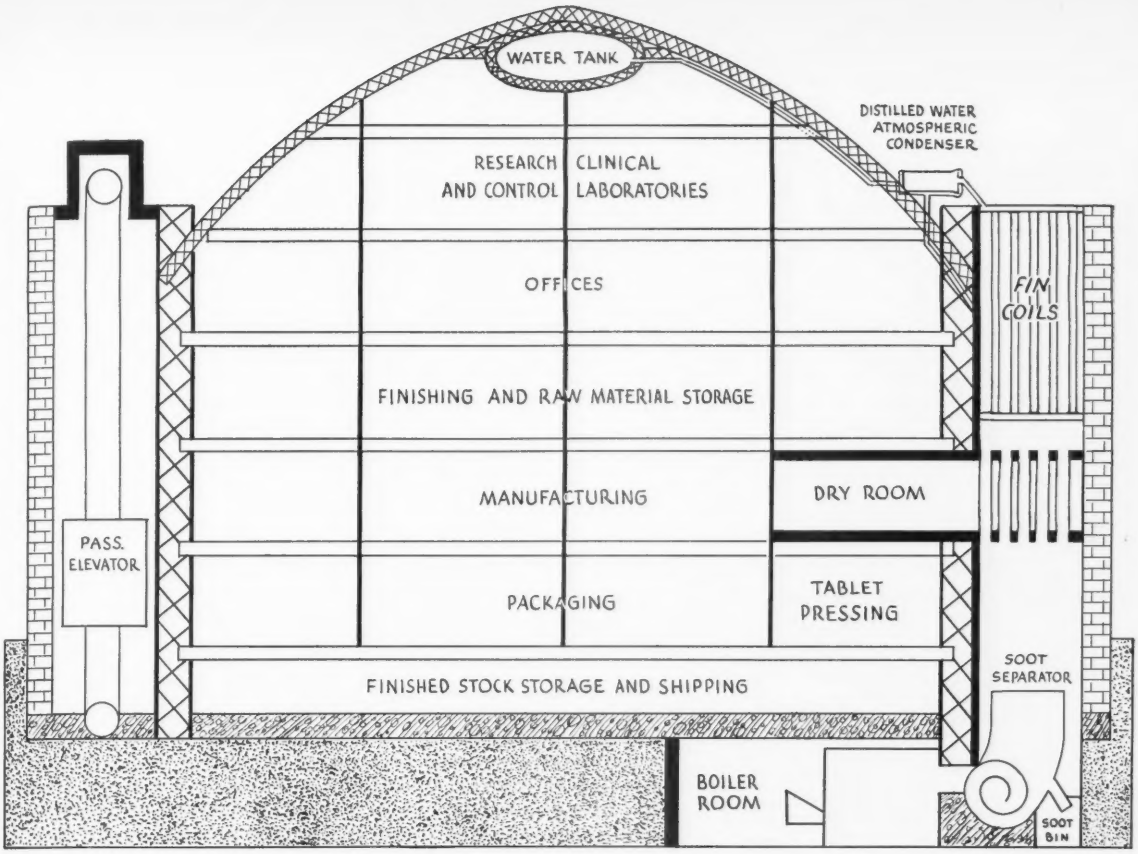
Prevention of the polymerization of phenylacetic aldehyde has been a serious problem to its manufacturers for many years, and in order to prevent this unusual condition it is often purchased in 50% solution diluted preferably with alcohol, benzyl benzoate, or diethyl phthalate. Benzyl alcohol can be used, but is less desirable since when the two are mixed, a considerable quantity of heat is generated. Therefore, in order to insure uniformity in the finished product it is extremely necessary that the perfumer either purchase the pure material and reduce it at once, or purchase the 50% product.

Phenylacetic aldehyde does not discolor in powders, creams, or perfumes, and, because of its powerful aroma, is a valuable aromatic to increase the intensity of the perfume.

The pure product should be stored only in full bottles and kept in a cool dark place, otherwise it will become thick and syrupy, gradually solidifying and becoming practically odorless.

Phenylacetic aldehyde dimethylacetal is one of the new outstanding aromatic chemicals which has recently come into prominence due to the demand for flowery odors. It is more stable than phenylacetic aldehyde, it does not polymerize, and it produces an effect in the finished composition somewhat similar to phenylacetic aldehyde. It does not discolor and can be used to good advantage powders, creams, soaps, and perfumes. It is excellent for hyacinth, jacinthe, gardina, and many other flowery odors, but it will not replace phenylacetic aldehyde in lilac.

This product is seldom sold under its chemical name, and its use has been limited due to the fact that it is higher in price and not so generally known as phenylacetic aldehyde. The perfumer who is not familiar with this product should obtain samples since its value in making new creations is greatly underestimated.



DRUG PLANT OF THE YEAR 2000

By Francis Chilson

In this article, the first of a series, Mr. Chilson endeavors to foreshadow the future by combining principles already known or anticipated in building his hypothetical drug manufacturing plant.

What would happen if in building and equipping a drug plant we could no longer depend upon the past to hold us up like a crutch? Suppose we were *forced* to face the future and had neither records nor experience; precedents nor assistance, to guide us in the manufacture of certain new products, wouldn't we establish our own precedents and create our own principles? Wouldn't we analyze the problem to its last minute detail and then set about creating a logical method of solving that problem? Undoubtedly, we would.

If we can do things like this under compulsion why can't we apply the same kind of unfettered thinking to our ordinary production problems? Are all our manufacturing methods and equipment perfect and incapable of improvement? They can be hardly that.

But there are many reasons for our reliance upon the past. Here are the brakes on progress:

(a) Mental laziness and inertia.

(b) Fear.

(c) Secretiveness.

It is mental laziness which causes us to rely so heavily upon the past. It causes us to seek the easiest way out by discovering how the same or similar products are handled by the Smith Corporation, the Jones Company and Blank Brothers. We use a lot of footwork (but little head-work) running around to see how "they" do it and then we build our plants, serene in the knowledge that we haven't made any mistakes and that, at least, we have a plant which combines the best practices of today. Having assembled all our precedents, few of us ever pause to consider that possibly our data may be wrong and that there may be more *logical* ways of accomplishing the same purpose. It may not be said that all established methods are always wrong and illogical, but some of them *may* be. Certainly, we owe it to ourselves to employ all our faculties in an endeavor to separate the wheat from the chaff before we proceed with new construction which cannot easily be changed without great expense.

Unfortunately most of the progress made by the trade insofar as equipment is concerned is due, not to *our* efforts, but to the alertness of machinery manufacturers. If the improved devices introduced by equipment makers were suddenly taken away we'd have very little left. This shouldn't be true and it wouldn't be if we weren't so lazy and so prone to inertia. The equipment maker has no interest *per se* in advancing the technical progress of the trade; his interest is purely competitive, and the more alert his competitors the greater will be the number of innovations he will introduce.

In most instances we don't move ahead; we're kicked ahead, and we account it progress if we have sense enough to junk an old piece of equipment, even though it is in good running order, in favor of a new or a better one!

Inertia is even worse than mental laziness; it implies, not a lack of perception, but an indifference and an unwillingness to do what is obviously essential so long as we can avoid it. It is expressed by the formula, "Let well enough alone." And that's why we percolated crude drugs for generations in open, gravity percolators before it dawned on us that the whole process is obviously wasteful and unscientific.

Fear is another brake upon progress. We have neither the faith in our own convictions nor the courage to accept responsibility for possible failures. We're afraid to try a new method or a new machine even though it logically is better qualified to fulfill our requirements than existing methods and equipment. We're afraid to experiment. Too often, indeed, the fault is not ours. We know that The Big Boss would be delighted to enjoy all the benefits of progress provided the attempt to secure them didn't cost him anything. And we know—or we fear—that our jobs will be forfeited if we try something new and fail in the attempt. It is a curious commentary on this trade that while thousands of dollars may be wasted in uneconomic advertising and nothing said, woe betide the plant man who spends a few thousand dollars in a fruitless experiment to improve a process!

Secretiveness is a curious disease that affects many plant managers in this trade. Surely none of us is self sufficient; surely none of us is so intelligent that he cannot benefit by the brains and experience of the entire trade. Secretiveness is asinine to a degree, because the only really valuable things we have are our trade names and the rest of the stuff is patented. True progress is impossible without a free exchange of ideas and the plant manager who won't swap ideas should be fired for he's too blind to be of value. Another curious anomaly of this trade, and especially of the ethical drug branch of it is that while we freely exchange and publish the results of scientific research, we close our plants to competitors so tightly that even the fresh outside air has a hard time getting in. And the Lord knows most of such plants need ventilating pretty badly!

Having summarized the reasons for our failure to make faster progress, we have at the same time made a public confession of our own weaknesses. We, like most other plant men, are too apt to lean on the past for support and guidance, but we've always tried to reason out how things might be (if some one would put up the cash) and probably will be to a large degree in the future. Hence, this article, and those to follow, may be considered as forms of wish fulfillment. We're going to try to peer ahead instead of backward and we expect that there will be a good bit of fun in the "peering."

Before we begin our romance we should like to summarize the faults of modern factory construction as we see them. The average modern factory building is poorly lighted, insufficiently ventilated; it is too difficult to heat or to cool; it has too much space wasted in pilasters, supporting columns and non-productive space such as elevators, stairs, etc.; it weighs far too much per ton of carrying load; it is too rigid and too prone to transmit vibration and noise; it does not readily lend itself to internal re-arrangements such as shifts in piping, wiring, and equipment.

Owing to factors introduced by NRA legislation introduced in the year 1933 whose full effects were not felt for many years, a very marked change began to take place in drug plant construction during the year 1950 and continuing throughout the remainder of the century. Restrictions upon profits and compulsory extensions of public service made it imperative to find cheaper and better forms of construction, production and distribution, each of which will be discussed in this series.

One of most interesting attempts in this direction was made in 1970 during the construction of the new Mead-Davis plant in New York. Whereas ancient steel and concrete buildings, such as those common in 1934, weighed from 200 to 750 pounds per square foot and would support only 250 to 500 pound per square foot, the Mead-Davis plant weighs only 75 pounds per

(Continued on page 314)

SUNBURN PREPARATIONS

With the advent of warmer weather manufacturers must prepare stocks of this growing group of products. Complete manufacturing details are given herewith.

Within recent years a great demand has developed for sunburn preparations of various kinds. This is a market capable of considerable expansion in view of the fact that these preparations can be made to appeal to both sexes and to persons of all ages.

The sunburn preparations fall into three categories which may be defined as preservative, simulatory, and remedial. Of the first category the preparations are designed to protect the skin against sunburn. Such products may be in the form of lotions, oils, creams or powders, and contain materials capable of protecting the skin against the action of the ultra-violet rays through the use of materials which will absorb or prevent the passage of such rays.

These materials are the salts of quinine such as quinine hydrochloride, quinine sulfate, quinine bisulfate, and quinine oleate. Of these the concensus of opinion seems to be that quinine bisulfate is most effective. Other materials possessing similar properties are aesculin, phenyl salicylate, ethyl-para-aminobenzoate, isobutyl para-aminobenzoate, ortho-oxy-aesculin, sodium naphthol-6:8-disulfonate and the other salts of naphtholsulfonic acid.

Tannic acid is said to possess similar properties, but is not generally used because it is likely to react with metal ornaments such as spectacles, necklaces, bracelets, etc., and leave a black deposit on the skin. Some work has been done on oxyquinoline sulfate and similar

derivatives of the oxy series, but at this writing an insufficient amount of evidence is at hand to offer an opinion as to their effectiveness.

Practically all of the vegetable oils and waxes and some of the essential oils such as cassia and thuja will protect the skin against severe sunburn to some extent. Heavy waxy ointments and zinc oxide preparations of various kinds offer similar protection. The popular demand, however, seems to be for preparations which will carry adequate protection without their presence on the skin being evident.

The selection of a protective chemical must be made with caution and only after exhaustive tests as some of them, such as phenol salicylate, are irritating to sensitive skins. The way to guard against this is to make exhaustive tests on a number of people before the preparation is placed on the market.

The simulatory products are designed to produce artificial suntan by leaving a light deposit of pigment on the skin as pigment in itself is protective. Often preparations of this character include some protective materials in addition to the coloring agent.

The remedial group of products are designed to relieve skin that has been sunburned. Such products must be cooling and also antiseptic in order to guard against infection. Remedial products include solution of picric, citric and acetic acids and toilet preparations which possess the properties of allaying the burning sensation characteristic of sunburned skin together with materials such as camphor, phenol, zinc sulfocarbolate, borax, potassium chloride, glycerin, rose water, tincture of benzoin, etc.

In the following formulas we have attempted to describe the popular types of sunburn products and again it is urged that all be carefully shelf tested in order to assure stability, and clinically tested so that any danger of irritation may be overcome.

PREVENTIVE PREPARATIONS

No. 1. Cream

Quinine sulfate	3.5%
White ceresin wax	5.5 "
White petrolatum	20. "
Mineral oil	19.5 "
Lanolin	15. "
Water	35.5 "
Oil of cassia	1. "
	100.0%

Procedure: Heat the water to 70° C. and dissolve the quinine sulfate in it. Melt the ceresin, petrolatum, and lanolin together, stir in the mineral oil, bring the mixture to 65° C. and stir in the quinine solution. Continue stirring until the temperature drops to 45° C. and then add the oil of cassia.

No. 2. Cream

Quinine bisulfate	2.5%
Cholesterin absorption base	25. "
Mineral oil	12.5 "
Alcohol	10. "
Water	49.5%
Perfume	.5 "
	100.0%

Procedure: Dissolve the quinine bisulfate in the alcohol. Melt the absorption base and the mineral oil together. Heat the water to the same temperature and stir it into the melted fat. Continue stirring until the temperature drops to about 45° C. and add the quinine solution and the perfume.

No. 3.

Sodium naphthol 6:8 disulfonate	4.0%
Borax	3. "
Beeswax	20. "
Mineral oil	20. "
Water	37.5 "
Petrolatum	15. "
Perfume	.5 "
	100.0%

Procedure: Heat the water and dissolve the borax in it. Add the sodium naphthol 6:8 disulfonate and stir until dissolved. Melt the beeswax, petrolatum, and mineral oil together. Add the liquids to the fats with constant stirring and when the temperature drops to about 45° C. add the perfume.

No. 1. Lotion

Quinine bisulfate	3.5 %
Glycerin	5. "
Gum tragacanth powder	2.5 "
Alcohol	15.5 "
Citric acid	.75 "
Water	72.25 "
Perfume	.5 "
	100.0%

Procedure: Mix the gum tragacanth powder with one-half of the alcohol and add it to one-half of the water. Dissolve the quinine bisulfate in the remainder of the alcohol and add the perfume. Dissolve the citric acid in the remainder of the water. Add the glycerin to the citric acid solution then add the quinine solution and finally the mucilage. Mix well.

No. 2. Lotion

Aesculin	4.0%
Glycerin	3. "
Borax	4. "
Alcohol	15. "
Water	73.5 "
Perfume	.5 "
	100.0%

Procedure: Heat the water, dissolve the borax in it and add the aesculin. Stir until dissolved. Mix the perfume with the alcohol, add the glycerin and stir this into the aesculin solution. Filter. If it is desired to color the solution add a sufficient quantity of spirits soluble brown.

(*Continued on page 266*)

POISON IVY PREPARATIONS

Warmer weather means out of door sports and greater chance for exposure to this infection. Complete manufacturing details for a wide range of remedies are given.

Millions of vacationists will soon be caressing the poison ivy which adorns almost every post, rail fence, stone wall, roadside and lover's lane in America.

The number of cases of ivy poisoning is definitely increasing. This is due mainly to two conditions: the increasing number of vacationists, most of whom don't know the difference between poison ivy and a grape vine; and the tremendous increase in the spread of the weed, due to the fact that the farmers of the country no longer mow the brush along their fences, and many of them, indeed, encourage the growth of poison ivy to discourage trespassing. With increasing leisure on the part of the working classes and government reduction of crop acreage it is easy to imagine that the market for poison ivy remedies is very promising.

Almost every known chemical has been tried or advocated by one person or another in consequence of which the number of home made poison ivy remedies is beyond counting. Most of these are worthless and it must be conceded that many of the proprietaries offered for the same purpose are not any more effective, because they are merely soothing preparations designed to allay itching and the burning sensation characteristic of the affliction. The remedy must of course accomplish both of these purposes and it must also counteract or neutralize the secretions exuded by the weeping lesions and blisters. In addition moreover the preparation must be antiseptic to guard against the danger of infection and it should contain an agent to promote healing.

The materials generally recognized as effective in the treatment of rhus poisoning are: sulfur, sodium hyposulfite, chloral hydrate, hydrocarbon distillates such as kerosene and gasoline, silver proteinate, basic aluminum acetate, potassium permanganate, most of the alkalis, alkaline soaps, lime water, lactic acid. Practically all

the antiseptics especially phenol are useful. Camphor, tincture of benzoin, menthol, benzoicaine, carbon dichloride and tetrachloride are all useful either as cooling and soothing agents or as local anaesthetics as their properties indicate.

The treatment of poison ivy (which includes poison oak, sumac, and mercury) may be approached in two ways: internally and externally, of which the former is generally conceded to be the most effective especially in severe cases. Preparations intended for internal use fall into two classes: one for subcutaneous injection and the other for oral administration. Both of these types of preparation contain the active principle of the plant which causes the irritation, *toxicodendric acid*, in a liquid vehicle such as olive oil, for subcutaneous injection, or tincture of cardamom for oral administration. The subcutaneous products are solutions of one part in a thousand of the acid in the vehicle. The oral products may be made of one part of the tincture of rhus toxicodendrum in a hundred parts of tincture of cardamom. Colloidal sulfur with glycerin and water is also recommended as a vehicle. The acid can also be made into tablets together with a suitable vehicle.

From a merchandizing point of view the internal preparations are useful because they can be for simultaneous use with the external preparations and also in the spring for immunizing purposes. If a regular schedule of gradually increasing doses is taken over a period of two weeks the person susceptible to the poisoning will secure almost complete immunity for that year.

In regard to external preparations it is conceded that liquid preparations are best. The ointments are not only more difficult to apply but they tend to increase the area of infection because they melt and in this state run down over unaffected skin. Moreover, ointments do not make the medicaments as readily available as the liquids.

Here are several excellent external preparations:

No. 1. Dusting Powder:

Colloidal sulfur	50%
Sodium hyposulfite (powder)	5 "
Lycopodium (or colloidal clay)	35 "
Calcium stearate	10 "

Procedure: Mix. Particularly useful when lesions are weeping profusely.

No. 2. Lotion:

Colloidal sulfur	20%
Sodium hyposulfite	5 "
Chloral hydrate	2 "
Benzocaine	2 "
Glycerin	10 "
Tincture benzoin	5 "
Water	56 "

Procedure: Rub up sulfur and glycerin. Dissolve sodium hyposulfite in the water, add chlorate, benzocaine, benzoin and sulfur mixture.

No. 3. Lotion:

Aluminum oleate	5.0%
White mineral oil	10.5 "
Menthol	.1 "
De-odorized kerosene	77.4%
Eugenol	5. "
Carbon tetrachloride	2. "

Procedure: Dissolve the menthol in the eugenol, add the mineral oil and the carbon tetra chloride and then dissolve the ammonium oleate in the mixture. Add this to the kerosene.

No. 4. Lotion:

Silver proteinate	.5%
Potassium permanganate	.2 "
Basic aluminum acetate	5. "
Triethanolamine	2. "
Glycerin	7. "
Tincture benzoin	5. "
Camphor	.5 "
Lime water	79.8 "

Procedure: Dissolve camphor in tincture of benzoin. Dissolve the rest of the ingredients in the lime water and add the benzoin solution.

No. 5. Lotion:

Phenol	.5%
Liq. lead subacetate	30. "
Tincture of opium	7. "
Tincture of benzoin	5. "
Rose water	87.5 "

Procedure: Mix all ingredients with the water.

No. 6. Lotion:

Picric acid (20% solution)	.5%
Benzocaine	1. "
Tincture of benzoin	7. "
Tincture of arnica	3. "
Ethyl ester of diethylene glycol	10. "
Witch hazel	78.5 "

Procedure: Dissolve picric acid in witch hazel. Mix the tinctures, add the glycol and the benzocaine. Mix both solutions. Note: as picric acid is explosive under certain conditions handle carefully and avoid heat.

No. 7. Lotion:

Green soap	25.0%
Potassium permanganate	1. "
Phenol	.5 "
Alcohol	10. "
Glycerine	5. "
Colloidal Sulfur	5. "
Camphor water	53.5 "

Procedure: Soak green soap in camphor water in which the permanganate has been dissolved, with occasional stirring until it dissolves. Put up and add sulfur and glycerin. Finally add alcohol and phenol.

For those who wish to make ointments any of the above ingredients made with a suitable vehicle such as short fibred petrolatum, lanolin, mineral oil mixed. Or straight cold cream may be used.

In all cases it is emphasized that these preparations should be tested before sale in order to determine their effectiveness and stability. The experimenter can easily be his own guinea pig. If he makes the internal preparations, he probably will be whether he wishes to or not unless he is exceedingly careful in handling the acid with which such preparations are made.

VEGETABLE JUICES IN COSMETICS

CARROT

Plant and vegetable juices containing food salts, vitahormones, vegetable acids, bitter principles, tannin materials, essential oils, enzymes, secretions, ferments, etc., have long been used in medicine, but the value of their application in cosmetics has also been proven. It is well known that the essential oils from plants have been used in cosmetic preparations, but less is known of the uses of plant and vegetable juices, of which special reference is now made.

As in medical science a distinction is made between allopathic and homeopathic practice so we can make a similar distinction in the use of cosmetics. Without being partial to the one theory or the other it can be easily shown that the therapeutic value of plants has been made use of in regenerative processes, to which too little attention has been given.

It is therefore not surprising that cosmetics can take an important part in this procedure. In the final analysis, the purpose of cosmetics is of a constructive character, so that surely one makes no mistake in this connection if the plant and vegetable juices are made use of in cosmetic practice.

In the first place a distinction should be made between the existing and known cosmetic preparations, as for example, Dralles Birken (birch) hair water, pine needle baths, etc. and those described herein.

In the former the vegetable juices or extracts form the basis for the manufacture of particular preparations, together with other products, which may influence their action, while herein we are concerned with the therapeutic action of the pure fresh vegetable juices, which are only to a certain extent permanent and are prone to deterioration and must therefore be preserved

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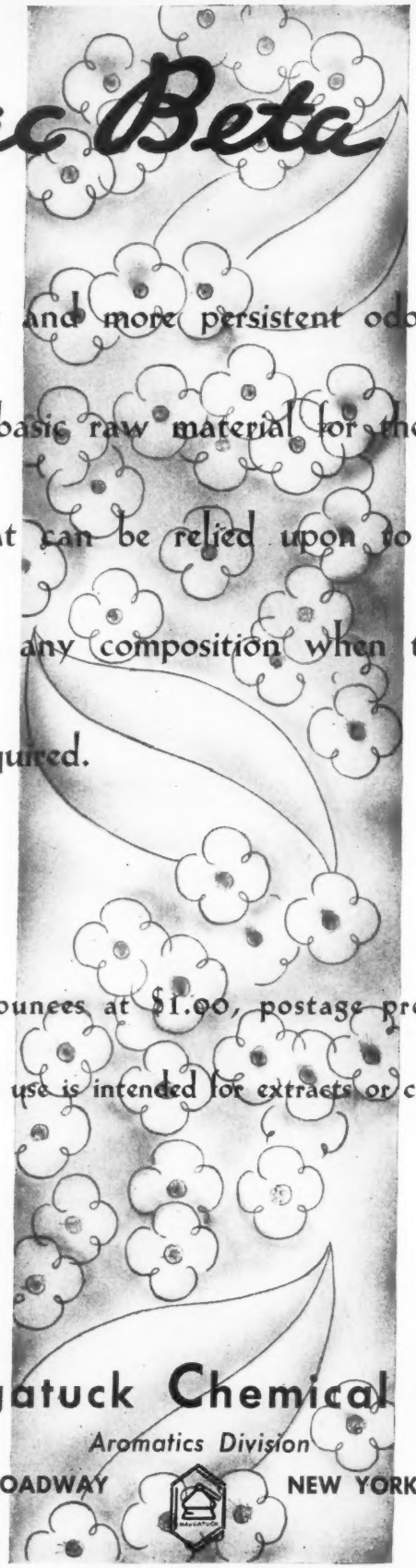

Trial ounces at $1.00, postage prepaid.

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Aromatics Division

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by the addition of suitable chemical preservatives.

The following tabulation enumerates the chemical composition and the cosmetic indications of various vegetable juices and extracts.

No.	Source of Vegetable Juice	Chemical Components of Vegetable Juices	Cosmetic Indication of Vegetable Juices
1	Birch	Soda, lime, saponin, sugar, essential oil, tannic acid, bitter extractives.	Internal and external applications—skin eruptions, reducing fat.
2	Beans	Potash, albumen, salts, sulfur, phosphates, silicic acid, insulin.	In external applications—skin diseases of all kinds pimples, black-heads, barbers itch
3	Nettles	Soda, potash, lime, manganese, iron, chlorine, sulfur, tannic acid, formic acid, ammonium carbonate, hormones.	In external applications—burns, inflammations, boils, skin eruptions, loss of hair, dandruff.
4	Water-cress	Iron, iodine, sulfur, tannic acid, mustard oil, salts, bases, vitamines A, C, D.	In external applications—skin eruptions, burns, loss of hair.
5	Cucumber	Bases, valuable and minor materials.	Internal and external applications—pimples, black-heads, reducing fat.
6	Colts-foot	Potash, lime, sulfur, tannic acid, essential oil, dextrine, gallic acid, bitter extractives.	In external applications—wounds, boils, burns, suppurations.
7	Carob Beans (St. Johns Bread)	Albumen, essential oil, pectin, tannic acid, hypericin.	In external applications—boils, fresh wounds.
8	Garlic	Albumen, sulfur, iodine, food salts, carbohydrates, oils, silicic acid.	In external applications—corns, wounds, ulcers, sores.
9	Dandelion	Potash, soda, manganese, iron, lime, salts, sulfur, insulin, silicic, acid taraxerin, tannic acid, mannite, caoutchouc, vitamines, bitter extractives.	Internal and external applications—skin eruptions and diseases.
10	Horse-radish	Albumen, salts, sugar, sinigrin.	In external applications—insect bites.
11	Carrot	Albumen, phosphorous, sugar, vitamine, essential oil, lipoids, caritin.	In external applications—ulcers, burns.
12	Parsley	Essential oil.	In external applications—ulcers, insect bites, freckles.
13	Radish	Magnesium, sulfur, bases, secretions, food salts.	In external applications—ulcers, ringworm.
14	Red Beet	Albumen, bases, carbohydrates, peptones.	In external applications—ulcers, inflammations.
15	Yarrow	Lime, potash, chlorine, sulfur, essential oil, aconite acid, achillein, inolin.	In external applications—ulcers, open wounds, bleeding.
16	Spinach	Iron, phosphorous, chlorine, fat, albumen, oxalic acid, secret bases, vitamine A.	In external applications—ulcers, skin eruptions.
17	Rib-wort (small Plantain)	Alkali salts, silicic acid, tannic acid, sulfur, bitter, ext.	In external applications—bleeding, insect bites, inflammations, ring worm, skin eruptions, ulcers.
18	Tomato	Lime, potash, phosphorus, food salts, Lykopin, malic acid, carbohydrates, vitamines.	Internal application—skin eruptions.
19	Juniper berries	Potash, lime, manganese, acetic and malic acids, Juniperin.	In external applications—skin diseases.
20	Horse-tail (Shave-grass)	Lime, alkali salts, iron, sulfur, manganese, magnesium, silicic and aconitic acids, pectin, bitter ex.	In external applications—skin eruptions, bleeding, ring worm.
21	Onions	Sulfur, sugar, phosphorus, citric acid, organic food salts, essential oil, allyl thiocyanate.	In external applications—frost bite, corns, warts, loss of hair.

In the above table it is pointed out that the vegetable juices can be dispensed both internally and externally. By internal treatment the valuable properties of the vegetable juices are effective in renewing the normal healthy functions of the organs of the body. This change is indicated by an improvement in external appearances. Such a product is "Preparation W-5," the principle of which is to improve the skin by internal administration.

The treatment of skin troubles externally by cosmetic preparations containing vegetable juices has the advantage however, of proceeding in the quickest way for the remedy of the trouble.

It is not the purpose of this report to over emphasize the importance of the vegetable juices in comparison with cosmetic specialties of today, but it is thought that the therapeutic action of these natural raw materials should be brought before the reader.

In the first part of this article it is pointed out that the vegetable juices may be of service in cosmetic practice, and it is likewise pointed out that by such use a different effect is logically to be expected. It is important to recognize the therapeutic action of the various vegetable juices in their pure condition, and it is not within the scope of this article to discuss the combinations with other raw materials that a manufacturer would need to make in the preparation of a special cosmetic product.

Abridged translation of article by Meldor, Der Deutche Parfumerie Zeitung, vol. 20, p. 3: Jan. 10, 1934.

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DEODORIZED KEROSENE in PHARMACEUTICALS and COSMETICS

Dr. Erich Meyer*

For a great many years kerosene has been used in the manufacture of various pharmaceutical and cosmetic preparations. The use of ordinary kerosene, however, was strictly limited because of its strong characteristic odor, which could not be easily concealed and also because unrefined kerosenes are composites of several different compounds containing varying percentages of unsaturated hydrocarbons. Owing to this lack of a standardized product and the presence of unsaturated hydrocarbons and other impurities, kerosene is very likely to cause a burning sensation and in many cases, more or less acute dermatitis.

For years, there have been on the market several types of so called semi-refined kerosenes, which, although they contained a somewhat lower percentage of unsaturated hydrocarbons, were still not pure enough to permit of their use in the numerous products where its physical properties would otherwise make it adaptable.

Recently, however, there has been made available to the trade completely refined kerosenes freed from impurities and possessing practically no odor. These fully refined hydrocarbon distillates possess all the useful properties of ordinary kerosene but apparently none of its drawbacks. Measuring these oils (which in fact, are the lightest viscosity White Mineral Oils) by U.S.P. standards, the acid test conforms to the U. S. P. specifications, although, of course, they cannot be classified as U. S. P. White Mineral Oil on account of low specific gravity. One such oil has the following characteristics:

Specific Gravity	0.775/0.785
Sayb. Vis. @ 100° F.	30/32
Flash Point (open cup)	170/180° F.
Distillation Range	370° F. to 500° F
ASTM Pour Point	—25° F.
Saybolt Color	30 plus (waterwhite)
Acid Test	U. S. P.
Iodine Number	Below 1

The physical properties of this material suggest very interesting applications in connection with the manufacture of drug and cosmetic products, many of which have already proven themselves to be practical.

The *absence of kerosene odor* extends the range of its usefulness in connection with the manufacture of a considerable variety of products. For instance, although ordinary kerosene has been used for a great many years in hair tonics, because of its cleansing and stimulating properties, its range of usefulness was limited because of objectionable odor. This meant that it could be used only in preparations designed to cope with severe conditions where the distraught user would use anything in order to overcome the difficulty. It stands to reason, therefore, that wherever kerosene proved its usefulness in the past, deodorized kerosene will continue to function with equal efficiency and can be used without arousing any objections as to its odor. Deodorized kerosene can be very readily perfumed with an exceedingly small amount of essential oil and without causing the perfume to lose any of its delicate characteristics.

For some time past, it had been conceived that an ideal oil base for various drug and cosmetic preparations should consist of a white mineral oil of non-volatile characteristics combined with a mineral oil of *volatile characteristics*. When using such a combination on the surface to be treated, the volatile portion of the mixture would evaporate in a short time leaving an exceedingly thin and continuous film on the surface, thus eliminating stickiness, greasiness and the danger of pore clogging. But heretofore there was no oil available combining both the required qualities of purity and volatility since the only type of oils which could be used are kerosenes which as mentioned, are unsafe for average drug and cosmetic applications.

With the development of completely refined kerosene, it is now possible to prepare an oil base along the lines such as stated above. Thus the adaptability of this oil suggests itself in connection with external applications containing oil soluble medicaments which are designed to be applied to the surface of the skin without making the skin greasy.

(*Continued on page 274*)

*Dept. of Industrial Research, L. Sonneborn Sons, New York.

millions of DOLLARS for swaying the SENSES

THE business of appealing to the senses runs into hundreds of millions of dollars yearly. Women rely almost entirely on their sense of smell in selecting face powder, lipstick, cold cream, bath salts, soaps and other preparations for personal use. Whether *your* offering leaves the retailer's shelves quickly, or lingers to collect dust depends largely upon how compelling is its odor.

Among today's most popular toilet preparations an unusually large number owe their success to the skill and experience of the Fritzsche perfumers who created for them an individual fragrance that swayed the senses and appealed to the imagination of the average woman.

For the past 61 years the Fritzsche organization has figured importantly in the history of the greatest cosmetic successes. Our experimental laboratories have always been open to the problems of the manufacturer. Therefore, if you are marketing a new product that requires skilful perfuming or if you are seeking to win wider acceptance for a toilet preparation already on the market, we invite you to consult our Research Department.

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Cardiazol Glucose Solution—Ampoules, 5 c. c. capacity, containing 10% cardiazol and 50% glucose. For intravenous injection in poisoning and to arouse from narcosis. Knoll A. G., Chem. Fabriken, Ludwigshafen a/Rh.

Calcimagon—Ampoules, 65 cc. capacity, containing 40 g. crystallized calcium chloride and 15 g. crystallized magnesium chloride dissolved in water. For veterinary use. Fabrik Marienfelde G.m.b.H., Berlin-Marienfelde.

Eugubrol—This is a bromine preparation in table salt form. It is made from Eugusal (potassium and sodium salts of citric, lactic and formic acids) and 40% hydrobromic acid. It is used like table salt, but not in excess of 1.5 grams daily. "Pharma" Max Loebinger & Co., G.m.b.H., Berlin W15.

Kombi Decalcifying Tea—A complex herb mixture for the treatment of arterial calcification. It contains the following ingredients: Cort. Frangulae, Cort. Phaseoli, Fol. Betulae, Fol. Ilicis aquifolie, Fol. Rutue graveol., Flor. Primulae off., Flor. Convallar. majal., Fuc. vensiculos, Fruct. Juniperi, Herb. Equiseti, Herb. Centaurii, Herb. Menth. pip., Herb. Genistae, Herb. Adonis vernal., Herb. Petrosel., Rad. Liquirit., Rhiz. Graminis, Viscum album. "Kombi" Chem. pharm. Praparate G.m.b.H., Berlin-Reinickendorf-Ost.

Nieran—This is a mixture containing 10% Extr. Scill. fld., 10% Extr. Stigmat. Mayd. fld., 20% Extr. Ononid. fld., 35% Extr. Betul. fld., 25% Extr. Phaseoli fld., 0.1% iodine. It is recommended for the treatment of bladder and kidney troubles. Pharmifa, Worms a/Rh.

Praparat RIII—This is an iodine, lithium, magnesium preparation for internal administration as an assisting agent in ray therapy. It occurs in intestinal-soluble capsules, each containing 0.03 g. total iodine (0.003 g. dissolved in elementary form in an unsaponifiable hydrocarbon and 0.027 g. as the iodides of lithium and magnesium). To prevent irritation of the mucous membrane and of the small intestine, the capsule also contains pectin—containing swelling agents. Chemisches Werk Dr. Klopfer G.m.b.H., Dresden A-20.

Tampovagan cum Radium I and III—Used in the treatment of chronic inflammation of the adnex, para- and perimetrium. Each tablet of I contains 0.1 gamma radium element while tablet III contains 0.3 gamma radium element. A. G. f. medizinische Produkte. Berlin N65.

Ultragenin is an extract of fresh animal blood activated by means of ultra-violet rays in the presence of oxygen. It is intended for the treatment of bleeding anemia, primary and secondary anemias and lymphatic leucemia. H. Buer Chem. Pharm. Fabrik, Koln-Bransfeld.

Anjanan—The product contains "Mercur. cyan., Mercur. rhodanat., Belladonna, Apis, Hypericum." Recommended in the treatment of angina catarrhalis,—follicularis,—septica,—ulcerosa. Chem. Werk Dr. Klopfer G.m.b.H. Dresden—A.20.

Chipaphen-Capsules—Each capsule contains papaverine 0.01, quinine hydrochloride 0.025, phenacetin 0.25, dimethylaminophenazon 0.25. For headache and toothache, neuralgic and rheumatic pains, ischias, grippe, dysmennorhea. Olo-Laboratorium pharm.-chem. Praparate Dr. W. Boldt, Rostock.

Dakula is a yellow lipstick which produces a fresh, red, indelible color upon moist skin; it may also be used for coloring cheeks and finger-nails. Dakula, Chem.-techn. Laboratorium, Kiel-E.

Felanumol is compounded from 50% dried beef gall, 30% phenylquinoline carboxylic acid and 20% hexamethylenetetramine. Recommended for rheumatism, gout, ischias, hardening of the arteries and for the treatment of all symptoms arising from obstruction of the gall bladder. Pharm. Handelsgesellschaft m.b.H., Dusseldorf.

Felanumol Compositum contains 50% Felanumol, 10% amidophenazon, 20% pyrazolone phenyldimethyl. salic. and 20% acetphenetidin. For use against grippe, colds. Same manufacturer.

Wilsagon—The preparation is sold in capsules for internal administration in the treatment of gonorrhea, cystitis, prostatitis, etc. Capsules are soluble in the secretions of the small intestine and each one contains 01. Santal. E. I. 0.15, Extr. Cubeb 0.05, Resin Kama 0.05, salol 0.05, arbutin 0.05. Askanische Apotheke, Berlin.

Dr. Wolf's Chafing and Healing Salve—The salve contains lanolin, glycerine, zinc oxide, starch, sulfur and mercuric oxide and is recommended for the treatment of chafing in children. Dr. August Wolf Chem. Fabrik, Bielefeld.

Muripsin—This is a compound of glutaminic acid and hydrochloric acid with the addition of pepin. It is recommended to counteract deficiency or absence of hydrochloric acid secretion in the stomach. Pharmazeutische Werke Norgine, Prag.

(*Continued on page 316*)

Baker's
FINE CHEMICALS

Announcing Another Superior Pharmaceutical Chemical

Baker's Magnesium Oxide U.S.P.

Fine, Light, Fluffy, Gritless Powder Provides Greater Solution Creaminess and Greater Colloidal Dispersion

Again Baker, pioneer of C. P. Laboratory Precision Chemicals, has developed a superior Fine Chemical for pharmaceutical and industrial use—an improved Magnesium Oxide U.S.P.

The uniformity of this light, fine, fluffy, gritless powder, meeting every U. S. P. requirement, is good news for makers of Milk of Magnesia, Magnesia Tablets, or Wafers, or other manufacturers using Magnesium Oxide.

Tests that you may make of its solution creaminess when hydrated, as well as its greater viscosity and colloidal dispersion, will amaze you. This is made possible by Baker's ingenious manufacturing facilities and Baker's methods of control.

Write for prices and free testing samples, also instructions as to the best method of use. You too will appreciate the superior qualities you find in Baker's Magnesium Oxide U. S. P.

J. T. BAKER CHEMICAL CO.
Phillipsburg, New Jersey

New York	Philadelphia	Chicago
420 Lexington Avenue	220 South 16th Street	624 South Michigan Blvd.

MANUFACTURERS OF

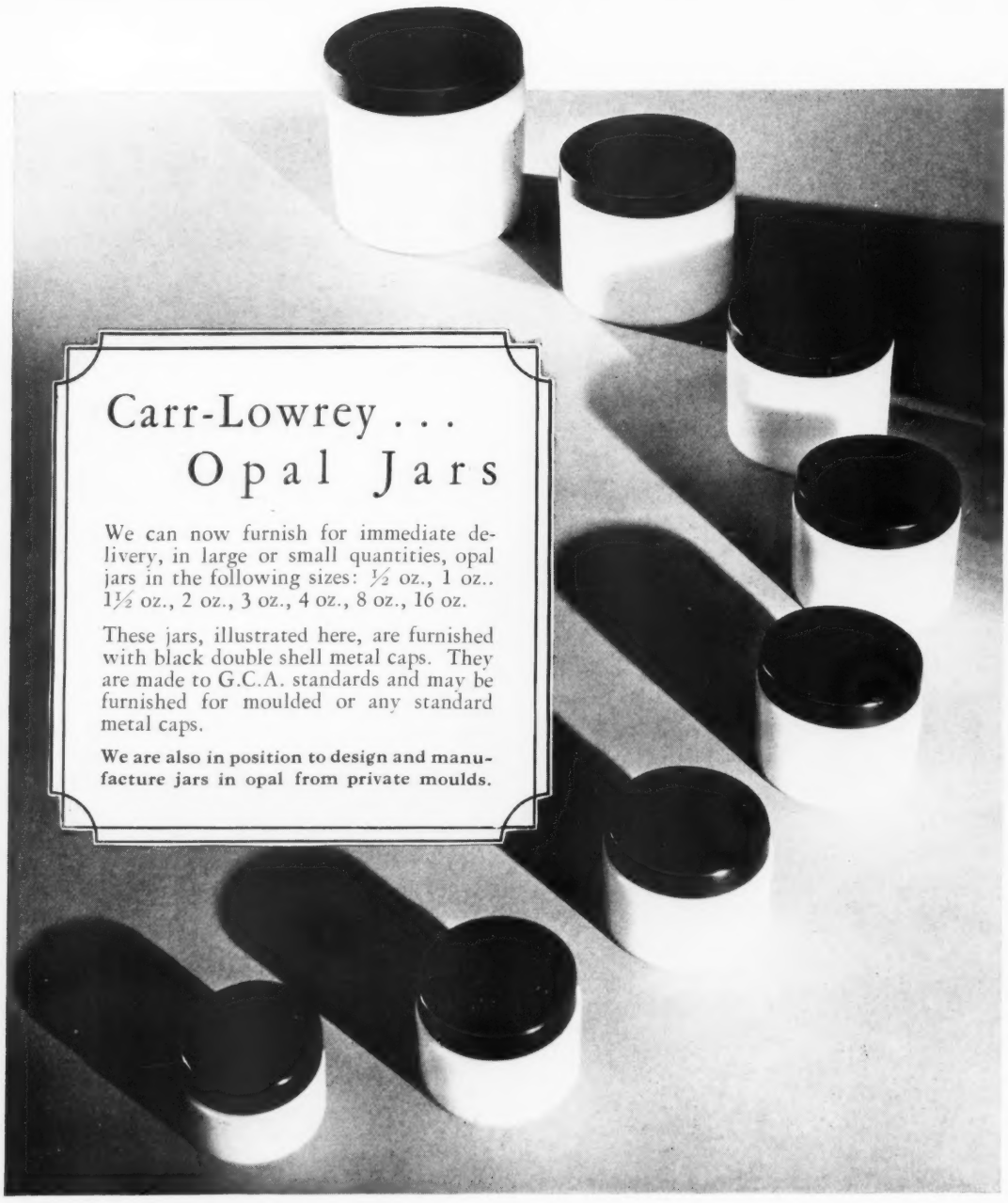
"Baker's Analyzed"

C. P. CHEMICALS AND ACIDS

PACKAGING DRUGS AND COSMETICS

A SECTION OF
"THE DRUG AND COSMETIC INDUSTRY"

SCHAEDLER


Carr-Lowrey . . .
Opal Jars
We can now furnish for immediate delivery, in large or small quantities, opal jars in the following sizes: ½ oz., 1 oz.. 1½ oz., 2 oz., 3 oz., 4 oz., 8 oz., 16 oz.
These jars, illustrated here, are furnished with black double shell metal caps. They are made to G.C.A. standards and may be furnished for moulded or any standard metal caps.
We are also in position to design and manufacture jars in opal from private moulds.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD.

NEW YORK OFFICE: 500 FIFTH AVE., Room 1427
Telephone: CHickering 4-0592

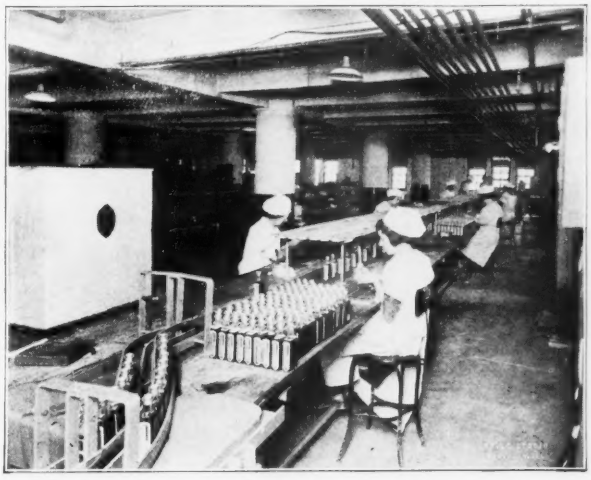
CHICAGO OFFICE: 1502 MERCHANDISE MART
Telephone: WHitehall 4326

In All of Your Bottling and Packaging Problems

U. S. B. M. Co. engineers will help you toward a satisfactory solution.

A service extending over a third of a century, to America's outstanding manufacturers of bottled products, is available to you through this organization.

Whether it be a single machine or a complete automatic bottling and packaging plant, we offer you the benefit of an unexcelled experience.



U. S. Equipment in a Prominent Pharmaceutical Plant

All kinds of liquids and semi-liquids packed in bottles, cans and jars are now being most satisfactorily handled on U. S. B. M. Co. machines.

And U. S. B. M. Co.'s engineers have worked out for internationally known organizations many intricate problems in the bottling and packing industry.

When you can obtain this type of service without extra charge, why experiment or worry over your problems? Let U. S. engineers serve you.

U.S. BOTTLERS MACHINERY CO. INC.

INVESTIGATE U. S. EQUIPMENT

Agitators	Filters	Dryers
Belt Conveyors	Pumps	Vacuum Fillers
Cappers	Strainers	Accurate Measure Fillers
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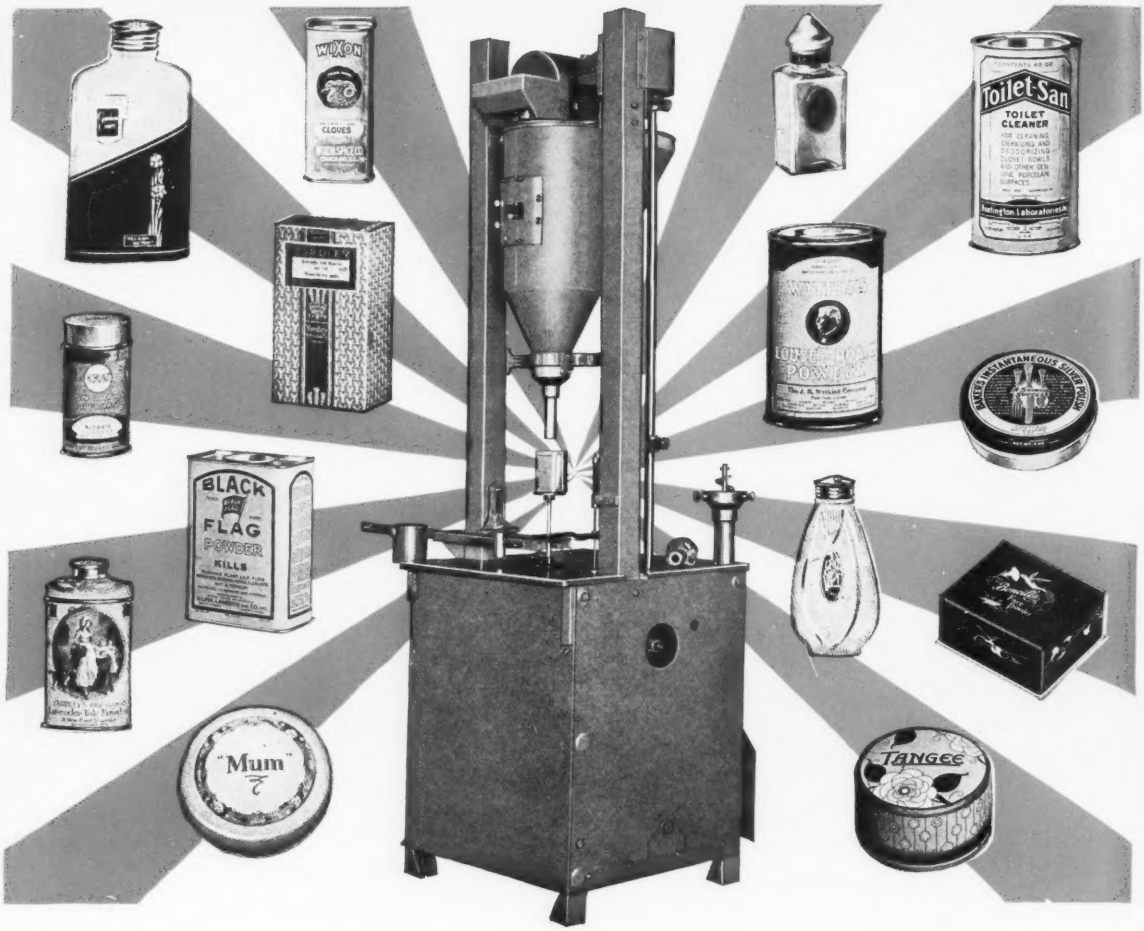
Cooling Conveyors		Storage Tanks

4015-31 No. Rockwell St. · · · · Chicago, Ill.

WASHING, FILLING and PACKAGING ENGINEERS



Use This Filler For *Any* Filling Job

So versatile it will fill practically *any* kind of container with almost *any* kind of material, the Stokes & Smith American Filler, with Gross Weight Scale, comprises four different machines in one single unit. These are:

1. *A gross weight scale with auger feed.*
2. *A volumetric filler measuring material by the volume of the package.*
3. *A volumetric filler measuring material by the turns of the auger, a very precise way for the smaller quantities.*
4. *A packing machine to compress the material into packages.*

Changing from one type of container to another, even from any paste to free-flowing powder, is only a few minutes' work.

May we arrange a demonstration for you?

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4912 Summerdale Avenue, Philadelphia, U. S. A.

British Office: 23, Goswell Road, London, E. C. 1

DISTINCTIVE BOXES

created by

DOUGLAS YOUNG, INC.

The distinctive box creations of Douglas Young, Inc. are packaging several recent notable cosmetic successes.

We have an art department which takes pride in its ability to originate unique and beautiful boxes for the cosmetic manufacturer.

May we put this department at your disposal to create an original, beautiful box?

W. C. YOUNG
Special Representative
Tel.: Wisconsin 7-8028
130 West 42nd St.
New York City

Douglas Young, Inc.

FINE PAPER BOX MANUFACTURERS - DISPLAY BOX SPECIALISTS

ONE HUNDRED AND TEN KENYON AVENUE

Pawtucket, R. I.

Beauty

IN HA OPAL JARS

It's a smart, new, modern beauty, that sells the product! The clean-cut, graceful lines of Hazel-Atlas Opal Jars have an irresistible appeal for women. Instinctively they recognize quality products in such attractive containers. Your label can be any color—the lustrous white bodies and shiny black tops of Opal Jars combine effectively with any color scheme. And your label can be any shape—the sides of Opal Jars are straight and smooth. The immense popularity of Hazel-Atlas Opal Jars lies in their ability to produce sales. You can boost your sales, too; by adopting HA Opal Jars, the standard of the world!

W O R L D ' S L A R G E S T

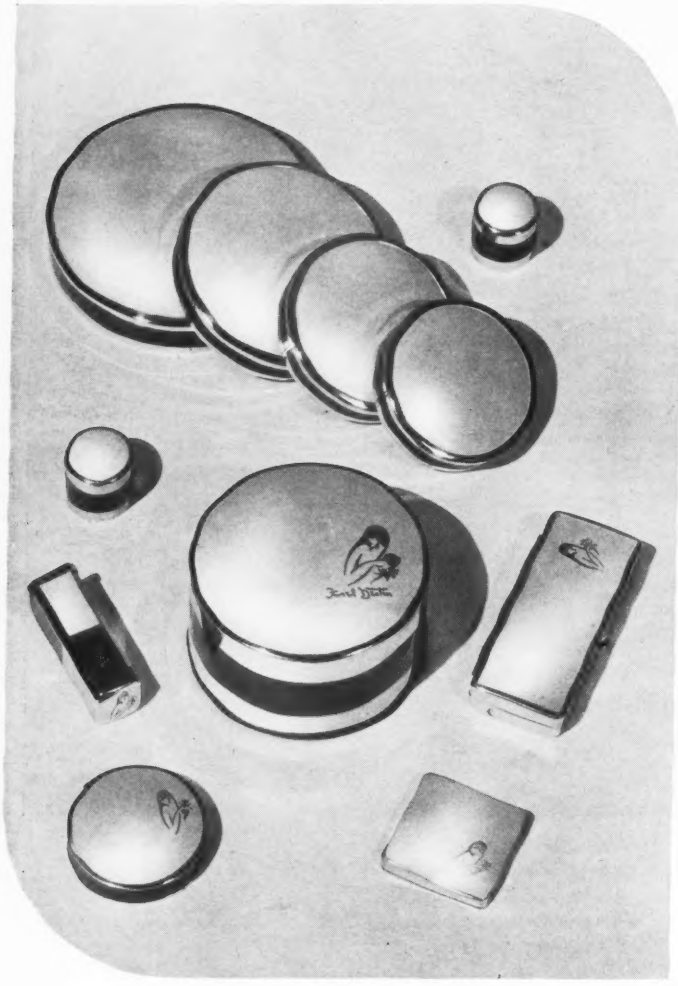
She treasures her beauty—she'll go to any lengths to protect it from harm. Be sure that the fine cosmetics you make for her are *safely* packed in Hazel-Atlas Opal Jars! *Safely*—because the substance of Opal Jars is chemically inactive, will not form injurious, skin-irritating, beauty-destroying compounds.

HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

MANUFACTURERS OF COSMETIC GLASSWARE

BRIDGEPORT



Quality Products

The smartest new cosmetic lines rely upon metal containers and metal covers to give their packages richness and charm. For distinction in metal containers, for the last word in beauty, design and utility, the smartest cosmetic manufacturers turn to Bridgeport Metal.

VANITY CASES
ROUGE CASES
PASTE ROUGE CONTAINERS
LIPSTICK HOLDERS (ALL TYPES)
POWDER BOX COVERS
EYEBROW PENCIL HOLDERS
BOTTLE CAPS
JAR CAPS
METAL NOVELTIES TO ORDER

The BRIDGEPORT METAL GOODS MFG. CO.

BRIDGEPORT
CONNECTICUT
Est. 1909

TELEPHONE: BRIDGEPORT 3-3125

PACKAGING NOTES

Brushless Shave Applicators

Little did we know when, in November, we wrote about applicators for brushless shaving creams of the large amount of interest in the gadgets. Although so far, we must confess, the interest seems to be chiefly on the part of inventors of these appliances.

For example there is Mr. J. Dean Spencer, vice-president of the University Laboratories of Chicago. He writes us at considerable length and also has sent us two of the applicators, a picture of which appears elsewhere in these pages.

Mr. Spencer calls his gadget "Even Steven" and he advocates its use for greater shaving satisfaction. It is a molded device which screws on the top of the tube of cream, with orifices to permit the cream to be squeezed out on a roller, which, in turn, lays the cream down on the face. Mr. Spencer adds that:

"In bringing out 'Even Steven' we went into the matter of tube sizes very carefully and we have found that it will fit better than 90 per cent. of the tubes. Even the small ten-cent sizes of 'Burma-Shave' carry the standard nozzle. About the only difference in the tubes is in the degree of sharpness of the threads and 'Even Steven' has been so designed that its will fit these threads no matter what their degree of sharpness or dullness may be."

"Closure News" is also interested in the possibilities of an applicator. A paddle type applicator, screwing on to the nozzle, and with a hole through it, has been suggested there. In that case, the cream would be extruded from the paddle and then be smeared on the face, much as you would spread mustard over a tasty bit of ham. But Editor Brill, with his usual perspicacity, points out in his own, inimitable fashion, that someone would have to "suggest a way to keep the good from hardening at the hole."

That may be a valid objection to all of the applicators which have been suggested, although there are authorities who claim that modern brushless shaves do not harden in this fashion.

For our part, we'd be glad to hear from all of you who have ideas or applicators, although we are still inclined to stick by our original premise expressed in November, that an applicator is sort of superfluous since the hands have to be wet anyhow in washing or wetting the face before applying the cream.

Safety Closure

We have recently examined a very interesting patented safety closure. What it primarily amounts to is a double-shell metal cap in which the inner part is free to revolve within the outer one. The outer portion has a slit in the top, center, and the inner a groove to match this slit.

To open and close, you have to register the slit in the outer cap with the indentation in the inner cap. Then insert a coin, knife-blade, screw-drive or other flat metal piece into the indentation and turn, and the cap comes off. The reseal has to be made in the same way.

The company sponsoring this cap says that "the advantage of this closure is that it absolutely prevents children from opening the package and partaking of poisonous materials; it also prevents careless adults from getting the contents of the wrong bottle.

"The cap may be opened and resealed any number of times, and, of course, may be made larger or smaller to apply to practically any type of package on which a screw cap might be used."

The company is interested in getting in touch with manufacturers of poisonous materials or those potentially poisonous through mistaken overdoses from the wrong bottle. Manufacturers of such materials which find their way into the household, might like to investigate the possibilities of a safety cap of this sort.

Let us know if you are interested.

All for Ten Cents!

There seems to be no limit to what you can buy in the ten-cent stores now-a-days. To those of you who haven't seen it yet, we want to point with amazement to the new "Du-Pak" nail polish package, reproduced in this section.

Here you not only have a bottle of nail polish, with the usual applicator, but also a two-piece molded cap which comes apart, exposing a nail whitener. And all of this, ladies and gentlemen, inflation or no inflation, for only ten cents.

Awarding the Palms

Of the packages we showed last month, nice things have been said about the Carlton line by Vantine's, the crystal spheres of Maison Jeurelle, and the new packages for men of McKesson & Robbins.

The Industrial Arts Exposition

Several indignant subscribers have written in complaining that we gave them a bum steer when we recommended that they go up to Rockefeller Center to see the

DRUG AND COSMETIC WOLF AWARD WINNERS

Industrial Arts Exposition. They say they got into two or three other expositions and finally ended up in the movies, but that they couldn't find the show to which we referred.

We're terribly sorry, but it really wasn't our fault. Unbeknownst to us, the committee in charge went and switched the opening to April 3.

Stormy Weather

Add to candy in book-like packages and cigarettes in tome-like containers, raincoats packaged in suede-covered boxes, having the appearance of distinguished novels. We know you'll simply adore the title of this latest masterpiece. Its "Stormy Weather" by (of all people) Goosekin.

The Wolf Award

The Packaging Show turned out to be quite something this year with practically everybody agreeing that it was by far the best ever. The exhibits were more numerous and much more attractive, generally speaking, than those we remember at previous shows. The attendance set new records and the clinics were again good, clean fun as they always have been, with many a lucky person coming away with more excellent free advice from high-priced designers than he had ever bargained for. If he can stand the gaff, this is certainly a valuable event for any manufacturer looking for criticism on his packages.

The selections for the Wolf Award were as usual the center of interest with our good friend Egmont Arens winning the *grand prix* for his "Red Circle" coffee bag. Our industry came off very poorly in this, we thought, due chiefly, we believe to the fact that it was not fairly represented. The manufacturers seem willing to leave the entries to the container manufacturers and several of these including Owens-Illinois, National Collapsible Tube and others render yeoman service in this respect. We do not mean that none of the manufacturers enter their packages, but simply that not enough of them enter to reflect adequately the work this industry does in packaging.

There were four honorary awards given to drug and cosmetic packages, three of which were won by Montgomery Ward & Co. for a codliver oil bottle, a brushless shaving cream tube and a boric acid canister. The fourth was won by the United Drug Co. for its Jasmine of Southern France shaving cream carton.

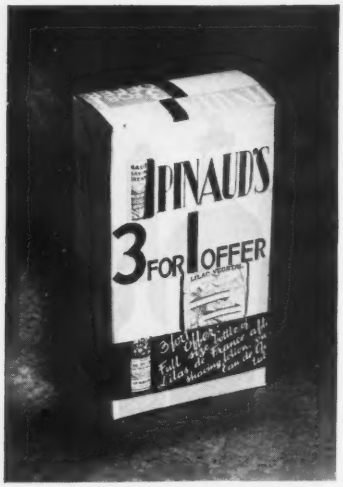
Other drug and cosmetic packages which were entered included the Norwich douche powder package, the Herco bottle, the Norwich athletic rub package, the McKesson shaving lotion container, the Marion Lambert eye drops, the Nelson Baker garden court toilet water, the Jean Wade line, the Nyal hand lotion, bay rum and witch hazel, the Mimzy perfumes, the Beauty Counselors' line, Wm. H. Loveland's hair wave lotion, Feminine Products' Perstik, Ivory shaving cream and carton, Bost tooth paste, United Drug's Jasmine tube, Armand's dusting powder box, Houbigant's dusting powder box, Abbott Laboratories' set-up box, Proctor & Gamble's Health Drene shampoo carton, Apple-Lax carton, Campana's carton, the Outdoor Girl line, Hudnut's Chevron Kit, the Chic Co.'s nail kit, the LatherKreem tube and jar, the Aywon shaving cream and tooth paste cartons, Maison Jeurelle's bottle and carton, and two Hudnut compacts.

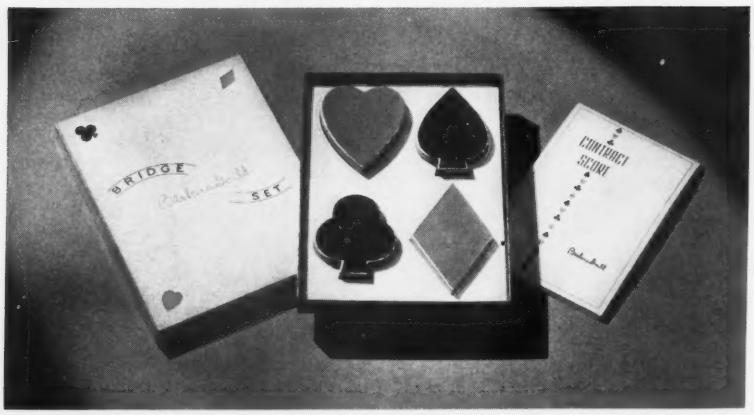
Jordeau is presenting Sip manicure in little decanters and in shades named after the wines brought into the best homes by repeal. Burgundy is dark; claret is medium; and champagne is clear. The box is white, gold, and red, and resembles a miniature bar shelf.

The new jeweled compact of Elizabeth Arden is square, thin and has a jeweled catch. It may be had in either powder alone,—all the Elizabeth Arden shades—or in both powder and rouge. The new lipstick is automatic and may also be had in all the Arden shades.

Elizabeth Arden has added to her nail polishes two new shades,—Sunset, a deep gleaming burnt orange, particularly good with greens, browns and evening shades; and Sunrise, a delicate pink with a silvery, opalescent and pearl-like finish unusually attractive for its inconspicuousness.

The new Farel Destin line is merchandised *exclusively* through the beauty shops of the country. With its brown and peach color scheme, attractively worked out in enameled metal caps, powder box cover, lipstick, and other metal containers, it makes one of the loveliest of the new family lines. (Photo courtesy Bridgeport Metal Goods Manufacturing Co.)

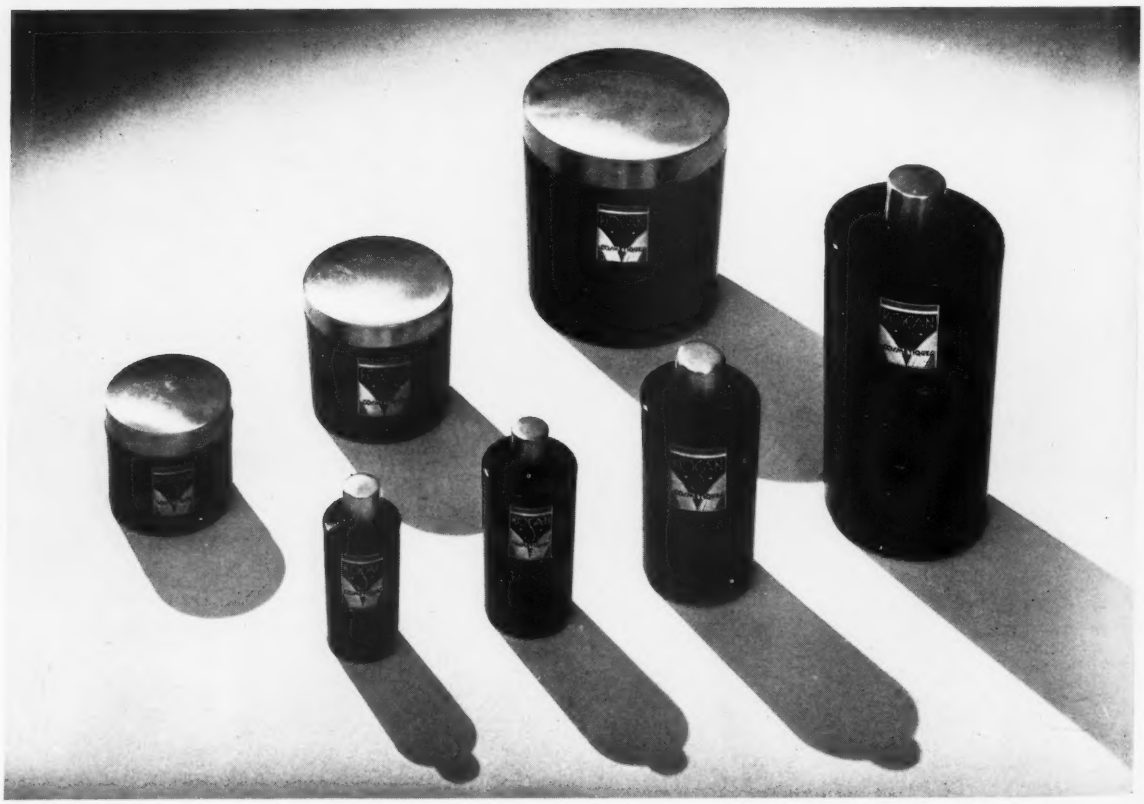




Pinaud is offering two ensembles, each featuring three of its well-known products —the one, featuring a full size bottle of "Lilas de France," with a ten-day tube of "Lilac Shaving Cream" and a one-ounce bottle of "Eau de Quinine." The other features a full size bottle of Pinaud's "Eau de Quinine" for the hair, with a one-ounce bottle of "Lilas de France" and a ten-day tube of "Lilac Shaving Cream." The combinations are attractively packaged in boxes showing each of the products through a cut-out in the front. Each set retails for $1.00.

A novelty in the form of a bridge prize is presented by Barbara Gould, Ltd. Four small boxes shaped and colored like the four card suits, spades, hearts, diamonds and clubs, and containing the four odors of the Barbara Gould line, "Ten", "Twenty-five," "Thirty," and "Forty," are packaged in a larger box of the Barbara Gould colors, red and tan. A contract score pad is also included with the set.

Packages of Kosan were selected by the Museum of Modern Art, New York, as an example of integrity in design for display in the Exhibition of Machine Art, March 7 to April 16. Photo, courtesy of Chase Brass & Copper Company, Container & Closure Division.



Listen to the counter conversation

PROGRESS SPELLS DOOM TO OUT-OF-DATE PACKAGES

THE repeated sales triumphs of the *modern* package illustrate the "survival of the fittest" in today's business. New comforts—greater use of art in every phase of modern living—have developed a universal style consciousness that *spells doom* to out-of-date packages.

Owens-Illinois offers you the simple answer to this problem—a change to the fine quality and sales appeal of *Onlzed* glass containers. The smart designs—the crystal clearness of *Onlzed* glass—the many practical features of *Onlzed* containers for proprietaries and pharmaceuticals—give products the eye-appeal that means increased sales. Write for further information. Owens-Illinois Glass Company, Toledo, Ohio.

How about stock-mold containers like these

Picture your product in a more salable package

Onlzed
PHARMACEUTICAL AND PROPRIETARY WARE

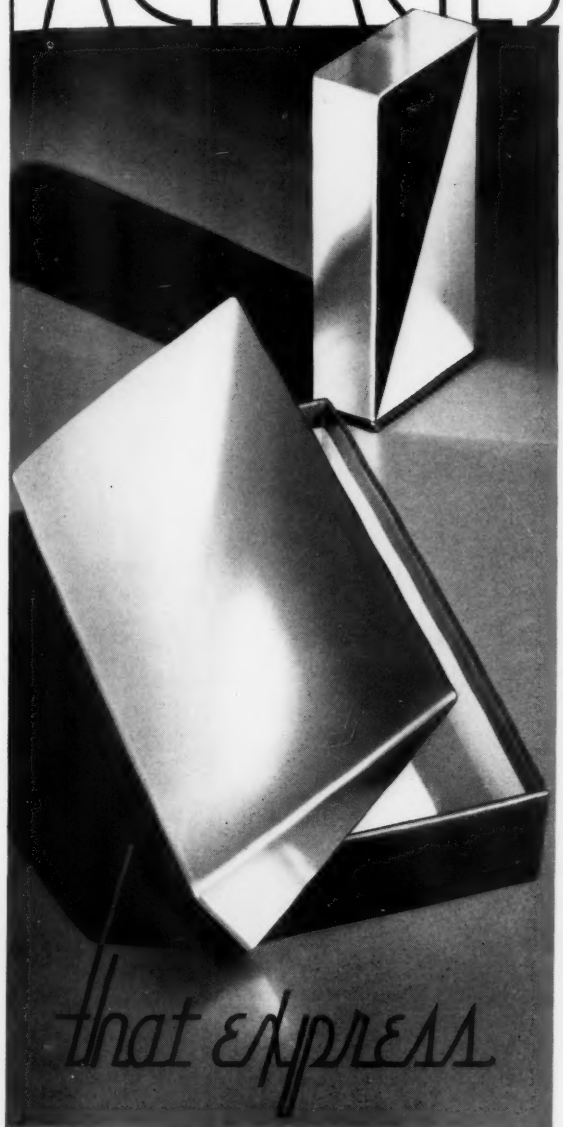
Owens-Illinois

Feen-a-mint attractive medicine cabinet size is now being further impressed upon the public by a radio program featuring George Gershwin, one of the greatest of the modern American composers. Photo by Heetfield-Tillou, courtesy of "Phoenix Flame."

Campana Sales Company has selected the name "Dreskin" for its recently introduced skin invigorator. The package before and after the selection of the name obtained by a prize award are shown. Photos by Heetfield-Tillou, courtesy of "Phoenix Flame."

Tussy's new "Emulsified Cleansing Cream" has been developed by Lesquendieu, Inc. to complement the "Liquefying Cleansing Cream." It is made of vegetable oils and possesses even greater penetrating and cleansing properties than the liquefying type. It is especially suited to a dry or sensitive skin. It can also be used as an all-purpose cream. The black jar with red and white label is characteristic of the line.

PACKAGES



that express

STATISTICS show that sales have been and are maintained on articles that are *attractively packaged.*

The right package . . . the one that really expresses . . . stimulates interest and desire, and sticks in the memory.

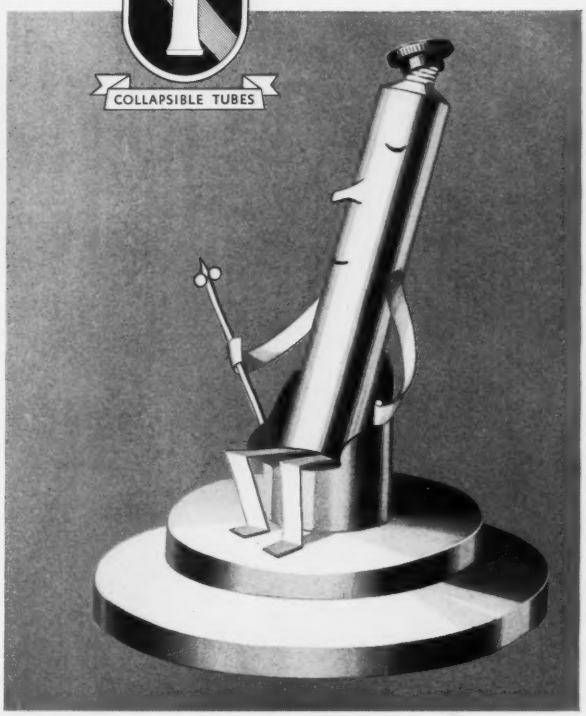
You are a forward-looking manufacturer. Keep pace with modern trends by letting "HATCH of LOWELL" design a package that expresses the spirit of today and reflects the *quality* and appeal of *your* product.

The C. F. HATCH Company

LOWELL, MASSACHUSETTS, U. S. A.

NATIONAL

COLLAPSIBLE TUBES



The Product is KING

Let his royal robes be made of shining metal, free from imperfections, as befits his rank. Smartly designed to attract the eye and cleverly personalized to suit his individuality. In short, let National Collapsible Tubes encase *your* product. They are worthy of this distinction.

Call on us for suggestions as to sizes, styles, caps, design suggestions or any other tube information. We will gladly send catalog.

NATIONAL COLLAPSIBLE TUBE CO.

PROVIDENCE, R. I.

New York Office
331 Madison Ave.
Phone Murray Hill 2-0339

Pacific Coast Office
6370 Franklin Ave., Hollywood, Calif.

Vi-Jon uses glass jars for their preparations—Turtle Oil and Turtle Oil Cream. Cobalt blue glass has been fashioned into a small unique container. Lacquered grey and silver labels give the opal cream jars refreshing individuality. Photo courtesy of Hazel-Atlas Glass Company.

Three "evening in Paris" items,—perfume, talcum and the single vanity,—packaged in a white octagonal box with orchid design are offered by Bourjois, Inc. as an Easter and Mothers' Day set. Two gift cards are enclosed with each package; one for Easter and one for Mothers' Day.

The Sparkling Hair Beautifier of George H. Weyer is packaged in a modernistic barber-stand bottle, closed with an attractive molded closure. Sharply pointed facets and crisp lines give the container the sparkle indicated in the name of the product. Design by Owens-Illinois Glass Company.

NEW PACKAGES . . . .

Attractive and Practical

Package No. 21
For Nail Polish, with camel's hair brush. ⅛-¼-½ oz.

Package No. 30
For deodorants. Has rubber sponge on glass rod. ½-1-2 oz.

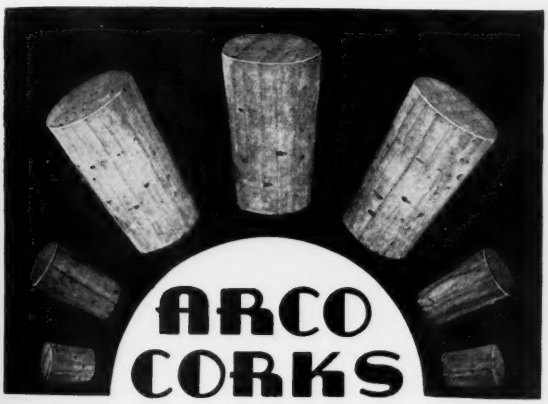
Package No. 23
Perfume Applicator, with Glass Rod. ⅛-¼-½ oz.

Package No. 24
Perfume Bottle.
⅛-¼-½ oz.

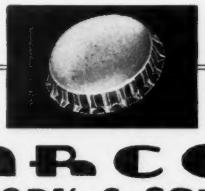
Package No. 40
For Nasal Application. Includes Pippette.
¼-½-1 oz.

Each package sold complete as illustrated.
Send for illustrated price list.

GLASS PRODUCTS CO.
VINELAND, N. J.
Western Representative: E. Marx Co., 308 W. Washington St., Chicago



Made from carefully selected raw material, these corks are live and resilient. Quality is uniform throughout a wide range of sizes and shapes. ARCO CROWNS will also seal your product with perfect satisfaction. Samples and prices without obligation.



ARCO
CROWN CORK & CAP CO., INC.
Sales Office: 21 Spruce St., New York
Factory: 3903-5 Second Ave., Brooklyn, N. Y.

This is one of many nationally known drug families packaged in RIDGELO---a selection that owes its continuance to the dependable excellence of this clay coated boxboard.

Ask your boxmaker or printer for proofs on RIDGELO. Notice the quality of colors, of folding and consumers' appeal.

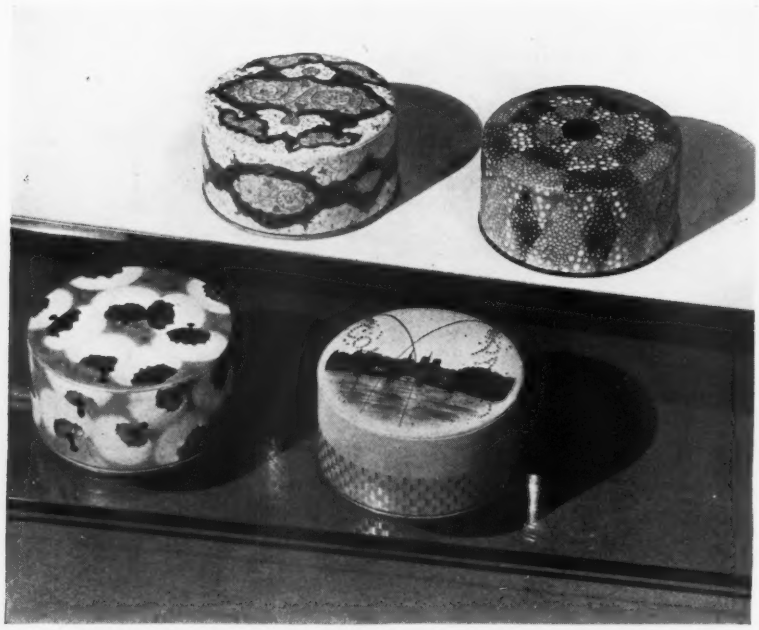
Samples will be sent on request.

Made at RIDGEFIELD, NEW JERSEY
by LOWE PAPER COMPANY

FOLDING **Ridgelo** BOXBOARD
CLAY COATED

An applicator to be screwed on the top of a tube of brushless shave has been invented by J. Spencer Dean, and is made of plastic. A ribbed roller in the top does the trick.

A cobalt blue and silver case forms a stunning kit for four of the Kathleen Mary Quinlan eye preparations, the eye bath, eye cream, eye packs, and eye astringent.



Three new powder-puff boxes have been adopted by Coty, Inc. for its "L'Aimant," "Paris" and "Emeraude" scented powders. The design of each box corresponds to the box for the perfume of the same odor. The gold and white box will still be used for the powders scented with L'Origan, Chypre, Styx and other Coty odors.

BOTTLES and JARS

- A full line of bottles and jars always in stock for immediate delivery.
- Available in small or large quantities. Jars: Clear, Opal or Colored, in all standard sizes—any quantity from stock.
- Perfume bottles, standard moulds or special design.
- Lotion bottles—many very attractive designs for your immediate use.
- Bottles and jars with and without caps. Let us quote on any size order for any type of bottle or jar.

HAGERTY BROS. & CO.
10 PLATT ST., NEW YORK CITY

GUTMANN'S C.T. SCREW CAPS AND "FILMA-SEAL"

(the double seal of cap and film)

Prevents Leakage and Evaporation
Is a GUARD against COUNTERFEITING

Cap may be printed with a warning to purchaser not to accept if inner seal is broken or tampered with.

Used on many Nationally known advertised products

FERDINAND GUTMANN & CO.
BROOKLYN, N. Y.
Established 1890
U. S. Patent & Pats. Pending—Trade Marks Reg.

COLLAPSIBLE TUBES & BOTTLE SPRINKLER TOPS

Our experience of more than fifty years in designing and manufacturing the collapsible tubes used for many famous products is at your service. We cordially invite you to consult with us on your tube problems. Your inquiries will be given sympathetic consideration

WHITE METAL MFG. CO.
HOBOKEN NEW JERSEY

New York Office:	Chicago Office:	Detroit Office:
F. L. Butz	Charles A. Rindell, Inc	R. M. Stevenson
100 East 42nd St.	64 West Randolph St	506 Donovan Bldg

Drug Act Hearing

(*Continued from page 227*)

label tell how palliation is effected, Mr. Thompson pointed out that this was impossible in most cases since not even the medical profession knew most of the answers. Mr. Thompson criticized the provision of the act which prohibits advertising of drugs for certain diseases, speaking in particular of whooping cough which the medical profession claims is a self-limiting disease. The only reason the physician is called in cases of whooping cough is to palliate and relieve the paroxysms. To do this he leaves a package of medicine. The manufacturer, however, must not interfere with the practice of the doctor in such cases by telling the mother of the child that she can get relief for her child if the doctor is not available.

Hugo Mock, counsel for the Associated Manufacturers of Toilet Articles, read from the record of the previous hearing in which Senator Copeland agreed with Mr. Mock that the word "average" should be inserted before the word "user" where cosmetics are banned in the bill if they are harmful. Mr. Mock distributed packages of depilatories to the committee, and then read from "100,000,000 Guinea Pigs" in his defense. He read from the book to the effect that depilatories are harmful only to some people when left in contact with the skin for too long a time. Mr. Mock also objected completely to the palliation provision of the bill. Speaking of deodorants, which merely mask the odor of excessive sweating and which do not operate on the sweat glands to decrease the sweating, Mr. Mock stated that these could not possibly be labeled in accordance with the palliation provision of the bill. As an example of carrying out this provision of the bill, Mr. Mock cited the vulcanization of rubber with sulfur which was invented by Goodyear fifty years ago. To this day, Mr. Mock said, no one can explain the operation of vulcanization of rubber with sulfur, and this is a simple matter compared with the treatment of diseases of the human body.

Dr. Ralph Evans, of Inecto and Marinello, appeared as representative of the Allied Manufacturers' for the Barber and Beauty Industry. Mr. Evans presented an excellent discussion of the chemistry of cosmetics, citing many cases of allergic effects. Dr. Evans expressed the opinion that poisonous substances should be permitted in cosmetics if they are not harmful under conditions of use. Senator Copeland said he could not agree to such a policy. Dr. Evans also asked that the act be amended so as to make advertising agencies equally liable with the manufacturer, so as to assure manufacturers that agencies would not prepare copy without a close check.

Dr. William C. Woodward, appearing for the American Medical Association, opposed definite minimum penalties in the bill, asking that this be left to the discretion of the judge. He declared it illegal for Congress to delegate law-making authority to the U. S. Pharmacopoeial Convention by accepting all future revisions of the U. S. P. without naming the membership and operation of the Convention, or making future revisions subject to the approval of the President as in the case of NRA codes. He also said there should be power given in the bill to issue emergency regulations without notice of hearing. Dr. Woodward asked elimination of the provision of the bill that the Secretary need not prosecute minor violations where a consultation will correct the condition. He stated that any wise official would do this anyway. Dr. George Hoover, former Chief of Drug Control, who originally suggested this provision at the previous hearing, took the stand to defend this provision, pointing out the mandatory character of the bill without such a provision, and indicating from his experience how such a provision will aid greatly in efficient enforcement of the bill.

Many other critics of the bill appeared, among whom were James F. Hoge, of the Drug Institute of America, but attacked multiple seizures; John W. Darr, of the Joint Committee for Sound and Democratic Consumer Legislation; Florence E. Wall, consulting cosmetic chemist; Clinton Robb, counsel for the United Medicine Manufacturers' of America; John Benson, President of the American Association of Advertising Agencies.

At the final session, Walter G. Campbell, Chief of the Food and Drug Administration, answered the critics of the bill, again exhibiting his Chamber of Horrors, which only three members of the committee had seen at the previous hearing. Mr. Campbell refused to agree to the amendment which would place the word "average" before user in the provision of adulterated cosmetics which are injurious. He said that such a provision would make impossible enforcement of the law against many cosmetics which have proven harmful, but which might not be judged harmful to the average user.

Senator Hebert suggested an amendment to section 6 (a) of the bill which deems a food, drug, or cosmetic misbranded if the label statements cannot be supported by substantial medical opinion, or by demonstrable scientific facts. Senator Hebert thought that this provide that the statements on the label must be supported by medical opinion appointed by the court.

When the hearings closed on March 4, Senator Stevens, chairman of the committee, stated that it would be several weeks before the work of the committee would be completed since the record of the committee members before the bill is put in its final form for presentation to the Senate.

Indications were, however, that many of the objections to the bill are certain to result in amendments. Among these amendments will probably be the creation of board on advertising; change in the membership of the board on drugs so as to fashion it more closely after the board on foods; provision for tolerances on slack filled packages.

RIEGELINE

FOR

TRANSPARENCY

WITHOUT EXPENSE

Riegeline is a newly developed product, combining the economy of ordinary glassine with the transparency of more expensive wraps. It twists well, works rapidly on any wrapping machine, and will not expand in wet weather or shrink to the splitting stage in dry weather.

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Faithful Service Since 1881

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Tablet Counting Machinery

COATED AND UNCOATED TYPES

Accurate, Speedy and Visible Count without Handling or Chipping

Send sample container and tablets for quotation

JOHN W. AYERS & SON

Bloomfield, N. J.

Manufacturers of Tablet Counting and Filling Machinery since 1883

PACK-URGES*

by "Duff" Gordon

"CAPLESS TUBE" PROVEN SUCCESS AFTER A YEAR'S TRIAL!

Just a little over a year ago Pack-Urges featured a "Capless" tube, suggesting it as the ideal container for tooth pastes, creams, and pastes—by virtue of its eliminating for all time the "lost" tube cap problem—or the costly item of leakage on shipments for foreign climes. Much publicity resulted—and a tooth paste that adopted the new closure reported "success" from the outset.—Now—more than a year later—we have tubes which were filled and numbered for later tests—others in use for twelve months—and these samples prove beyond question that the "Capless" tube overcomes many bothersome questions; is economical to manufacture, as it eliminates cap costs; lives up to its guarantee of automatic closure after each time it is used; and gives manufacturers of tooth paste, shaving cream or what have you, an additional advertisable feature for their products. We are predicting a continued success for the "Capless" tube and will send you samples to prove our point. Write us now for costs and proofs of our statements as to its success.

• • •

MAILERS FOR EVERY PURPOSE

The mailing box illustrated here is just one style of the wide range of "Gordon" Mailers, suitable for every type of sampling campaign . . . Some are corrugated lined—others have sealed flaps—all are approved by the United States Postal Service . . . Show us what you want to mail and we'll build a box around it that will deliver your product in perfect condition . . . Prices are moderate . . . Workmanship unexcelled . . . A call will bring you full particulars.

• • •

PERFUME AND POWDER BOXES

Every perfumer knows that boxes for Perfumes, Cosmetics and Toilet Preparations should have a note of individuality *built into the box.* Style trends and interior decorative preferences are but two of the many phases which we keep in mind when making boxes for the cosmetic trade . . . The only set-up box included in the best All American Twelve Packages was handled in detail by us (designed by Mrs. Avery Robinson)—just another example of our ability to interpret your ideas in definite salable boxes. Call us in on your next box purchase . . . We'll serve you right—and save you money.

"Pack-Urges" is issued occasionally in the interests of better packages. If you wish to receive it regularly it will be sent free upon request. Address: ***H. R. M. Gordon —A Complete Packaging Service—331 Madison Ave.*** *(Phone Murray Hill 2-0339) New York.*

*Copyright and trade-mark applied for

Sunburn Preparations

(*Continued from page 238*)

No. 3. Oil

Quinine oleate	4.5%
Olive oil	30. "
Peanut oil	64.5 "
Oil of cassia	.5 "
Perfume oil	.5 "
	100.0%

Procedure: Dissolve the quinine oleate in the peanut oil; add the other oils and perfume. If it is desired a sufficient quantity of pigment brown may be added to this preparation.

No. 4. Sunburn powder

Quinine sulfate	3%
Zinc stearate	10 "
Titanium dioxide	7 "
Talc	58 "
Colloidal clay	13 "
Precipitated chalk	5 "
Suntan color base	4 "
	100%

Procedure: Dissolve the quinine sulfate in a small quantity of alcohol and rub up this solution with the colloidal clay. Allow the alcohol to evaporate; add the other ingredients and proceed as in the manufacture of ordinary face powder. This powder differs from the suntan formulas given in the chapter on face powders in that it is much more opaque and possesses a substance which will prevent sunburn. The formulas given in the face powder section are merely intended to produce an artificial tan.

SIMULATORY PREPARATIONS

No. 1. Suntan Cream

Petrolatum	87.5%
Lanolin	6. "
Pigment brown	6. "
Perfume	.5 "
	100.0%

Procedure: Grind the color with a small quantity of petrolatum. Melt the petrolatum together with the lanolin, strain in the color base, mix, strain and perfume.

No. 2.

Ceresin wax	15.0%
Beeswax	8. "
Lanolin	10. "
Petrolatum	10. "
Mineral oil	56.5 "
Perfume	.5 "
Color q. s.	
	100.0%

Procedure: Melt the waxes; add the lanolin and petrolatum. Mix, strain and perfume. Then add a sufficient quantity of brown.

No. 3. Suntan Oil

Olive oil	50.0%
Peanut oil refined	49 "
Oil of bergamot	1 "
Color q. s.	
	100.0%

Procedure: Mix the oils and add a sufficient quantity of pigment brown for a suitable shade. For specific data see "Cosmetic Colors" in the Buyer's Guide section of this book.

No. 4.

Olive oil	50%
Peanut oil refined	43"
Seasame oil	5 "
Oil of thuja	1 "
Oil of bergamot	1 "
	100%

Procedure: Mix the oils, filter and add a very small quantity of oil soluble brown.

No. 5. Suntan Lotion.

Alcohol	15.0%
Glycerin	5 "
Water	79.5 "
Perfume	.5 "
Color q. s.	
	100.0%

Procedure: Add a sufficient quantity of spirit soluble brown to this lotion to produce the required shade. Then mix and filter the preparation. Owing to the difficulty of applying such lotions uniformly they are not particularly satisfactory.

Some manufacturers prefer to use a lotion with a sulfonated oil or sulfonated fatty alcohol base together with a small quantity of alcohol and water. This is colored with a spirit soluble color. Such a preparation is easy to apply and it does not give the skin an oily appearance because the sulfonated materials being water soluble are dissolved as soon as the user goes into the water leaving a brown precipitate on the skin.

For suntan powders see the section on face powders.

HEALING PREPARATIONS

No. 1. Healing Oil

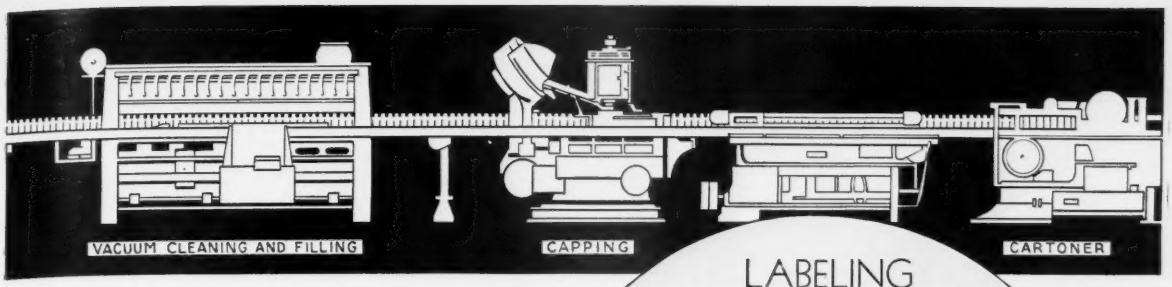
Tincture of benzoin	4%
Borax	4 "
Olive oil	40 "
Lime water	52 "
	100%

Procedure: Dissolve the borax in the lime water; add the olive oil with rapid agitation. When an emulsion is formed add the tincture of benzoin.

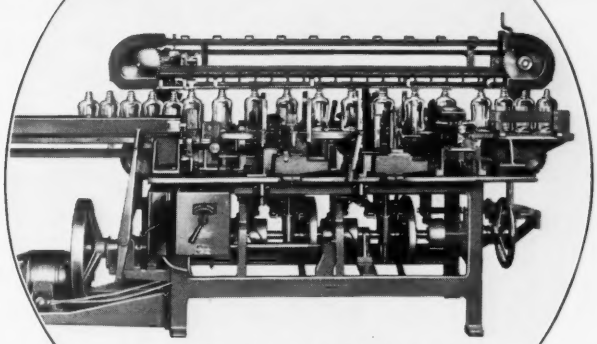
No. 2. Sunburn lotion.

Zinc sulfocarbolate	1%
Alcohol	8 "
Glycerin	5 "

(*Continued on page 314*)



LABELING



THE McDONALD LABELER

Speed-flexibility UNMATCHED *for* LIQUOR BOTTLE LABELING

With the acquisition of the McDonald Labeler, Pneumatic now offers a complete automatic liquor bottling plant.

Pneumatic Scale Corporation selected the McDonald, in preference to all other labeling machines, because it employs the most direct and the most accurate labeling principle. It is the simplest in operation and the most satisfactory in results. Unlike all other types, the McDonald does not use pickers to transfer the label from magazine to container. The magazine itself deposits the label on the bottle. Accurate register, wrinkle-free application is guaranteed. The labels are gummed over their entire surface, assuring permanency as well as neatness.

McDonald Labelers are also more flexible in the larger variety of types of bottles and labels which they will handle and speeds at which they operate. They can apply front and back labels simultaneously on bottles and flasks, all around labels on round gin and wine bottles, and combinations of body and neck labels, at nominal straight line labeling machine speeds with one station, or at a faster production rate with high-speed, two-station models.

NRA U.S. WE DO OUR PART

Get the facts on Pneumatic "McDonald" Labeling before you buy . . . write today!

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PNEUMATIC SCALE CORPORATION, LTD., 70 NEWPORT AVENUE, QUINCY, MASS. (NORFOLK DOWNS STATION)

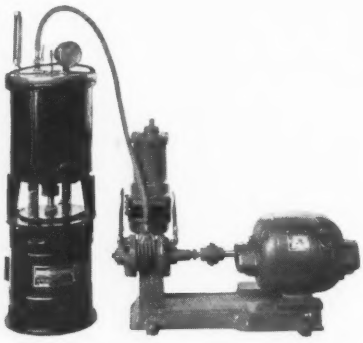
Branch Offices in New York, 117 Liberty Street; Chicago, 360 North Michigan Avenue; San Francisco, 320 Market Street
Melbourne, Victoria; Sydney, N. S. W. and Trafalgar House, No. 12 Whitehall, London, England

TOMORROW'S EQUIPMENT TODAY!

The drug and cosmetic plants of the *immediate* future will be equipped throughout with scientific, vacuum equipment. All extraction, concentration, mixing and filling processes will be carried out under vacuum. Some of these processes are being partly *vacuumized* today and Abbe is showing the way. That is why we repeat . . . .

Abbe's New, Scientific Vacuum Mixer is Tomorrow's Equipment Today!

BUILT
CORROSION
PROOF



FROM
ONE TO A
THOUSAND
GALLONS

Abbe Laboratory Size Vacuum Unit

This new, scientific vacuum mixing unit enables you to mix rapidly under vacuum: medicines, liniments, tonics, antiseptics, biologicals, oils, cough syrups, ointments, liquid soaps, cosmetic lotions, toilet creams, dental and shaving creams. You can even mix powders!

And some users have employed this remarkably flexible unit for the extraction of non-gummy crude drugs, using a high proportion of menstruum. This scientific unit . . . .

- *Saves perfume and volatile medicaments*
- *Prevents oxidation of sensitive chemicals*
- *Prevents incorporation of air*
- *Increases the stability of emulsions*
- *Shortens mixing time*
- *Improves your product*

Stop Waste Now With Abbe's New, Scientific, Vacuum Mixer!

Medicines and other products processed under vacuum lose no strength due to oxidation or light reactions and hence you can secure comparable results by using less of expensive extracts and raw materials. In this way you can compensate for increased NRA costs and give your customers more effective products. Your present mixing equipment is obsolete now. Write to us for prices and further details.

Write or phone now!

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Makers of Mills, Mixers, Sifters, Grinders, Pumps, Vacuum Equipment

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CLEVELAND
MONTREAL
TORONTO

PRODUCTION FORUM

By Francis Chilson
Production Engineer

Filtering Mucilages

Some time ago one of the boys wrote in and asked us if we could tell him how to filter mucilage of acacia. It seems that he was not able to get a satisfactorily clear product. We recommended centrifugal clarification and told him that if that didn't work we didn't know what would. Now we do know, having run across a process which utilizes the method of selective filtration that we suggested in the Department last month. This process is being used by a big candy company for whom we did some work a number of years ago. The method calls for the use of a cylinder with a screen diaphragm across the bottom. On this diaphragm a layer of fine material such as fuller's earth or purified talc is placed by pumping in a solution containing the filter aid. Then, in the same manner another layer of a coarser material is pumped in and the same procedure is repeated with increasingly coarser materials until a cake several inches thick is built up. The top layer of this may well consist of a layer of excelsior which of course would have to be placed in by hand. The mucilage is then pumped in.

Below the diaphragm there are connections for a vacuum pump. This pump is started, thus drawing a vacuum below the filter bed, and the filtrate is continuously pumped into a receiving tank. Successful filtration of mucilages or slimy products by this method consists in knowing what materials to use for the bed and how to build it up. The method obviously consists in removing the coarser matter first and continuing thus in a progressive manner until the stuff is completely clarified. As the bed is several inches thick it naturally retains a fair amount of the mucilage. This can be recovered by pumping through addition solvent, such as water or alcohol, as the case may require. This thin mucilaginous residue can be preserved and added to the next batch. If this isn't practical in certain cases, then the filter bed can be squeezed so as to remove the residue. You will get a clear picture of the apparatus if you visualize a sausage machine, such as is sometimes used for hand filling collapsible tubes, containing a diaphragm and a filter bed, such as the one described above. The vacuum pump is connected to the outlet and the mucilage is put in at the top. When the job is finished the squeezer is screwed down and the residue pressed out.

This entire process will be described in detail in a later issue by the man who developed it and who is now selling equipment for this purpose. This gentlemen is planning to market standard units in the near future.

Semi-Automatic Cartoning

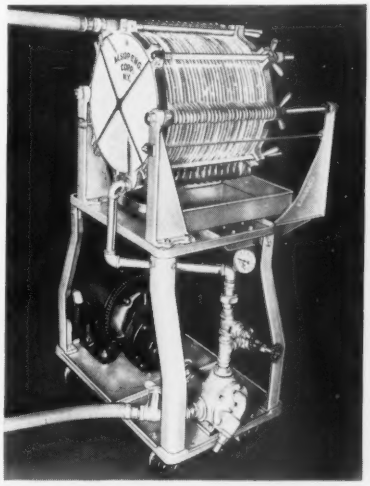
Last month we had a piece on a semi-automatic cartoning machine which is adjustable over a wide range of sizes. We just had a letter from our old friend H. H. Leonard of Consolidated who tells us that he's building one for the distillery business and that he'll send us a photo and operating data later. H. H. says that the machine is adjustable over an extremely wide range of sizes and that adjustments can be made in a few minutes with very few parts.

While we're on the subject of cartoning we'd like to emphasize again that a lot more of you could use automatic cartoning machines on a profitable basis. You don't have to have enough production to keep one going at full speed all day and all week. We've seen cartoners that only operated a week each month and yet were profitable to operate.

New and Pertinent

A new model HY-SPEED ultra fine disc filter with a number of exclusive features has just been developed by engineers of the Alsop Engineering Corporation, 39 West 60th Street, New York City.

The photo shows the new machine with



an explosion-proof, ball-bearing motor with built-in gear reduction. An exclusive feature of the pump, which is constructed of stainless steel and bronze, is its oilless bearings which prevent any danger of contamination of the liquid being filtered.

An automatic pressure control on the pump eliminates any necessity for having an attendant constantly watching the filter while it is operating. The machine is entirely automatic in operation.

While thirty discs are shown in this picture, as few as four discs can be used, when only small quantities of liquid are to be filtered, thus making the filter adaptable for large or small batches with equal efficiency.

A new highly polished rust and tarnish resisting metal alloy called chrome-zinc is announced by Appollo Metal Works. This metal is said to be adaptable to all kinds of equipment and process work in our trade and we'll give you more dope later.

Bausch & Lomb have announced an opacimeter for testing the opacity of paper. This machine operates by means of a photo-electric cell which makes it possible to measure light penetrations on a white and on a black background respectively. We think that this machine can be utilized for measuring the opacity and hence the covering power of face powder.

Ball Mill Flexibility

Most of you regard the ball or pebble mill as a machine for milling dry materials. Primarily it is that, but ingenious users have used it for many different purposes with surprisingly successful results. Our old pal, Dr. Harvey Seil, of Seil Putt and Rusby told us how he used one for extracting crude drugs of a gummy nature some twenty odd years ago. This stuff yielded only about twenty per cent of its content of extract when percolated in the usual way. Doc conceived the idea of dumping the stuff into a pebble mill, adding the menstruum and letting her roll. The result was that he got all the extract out. One advantage of this method is that it wouldn't be necessary to bother with grinding many drugs at all. You could

dump them in, add the menstruum, and the mill would at once grind the stuff and extract it too. Since there are pebble mills equipped with steam jackets and vacuum pump connections it is obvious that this machine might be used for grinding the drug, extracting it, and recovering the solvent from the marc. We're thinking of running some experiments with henbane and belladonna, in connection with which we won't grind the stuff at all.

Now let's consider such a set up. The outfit would consist of a steam jacketed pebble mill with vacuum connections through the drive shaft, and water connections through the other shaft; a vacuum pump and a condenser. In operation the unground drug would be dumped in and the mill sealed. Then the menstruum would be pumped in and the mill started. In order to offset the heat of milling, cold water would be circulated through the jacket. In due time the mill could be stopped and the extract pumped off. Then another wash or two could be run through in the same manner. When the drug is exhausted, the water could be shut off and the jacket drained. Then the vacuum pump would be started and steam run into the jacket. In this way the menstruum would be drawn off and condensed. When the operation is completed, the mill can be discharged of the dried, exhausted marc. In order to separate the pebbles from the marc it would be necessary to have a grate under the mill to trap the pebbles. If necessary, they could be washed off with a hose. In cases where the mill is used for the same drug all the time it wouldn't be necessary to dump the pebbles at all.

Another interesting adaptation for the pebble mill is to use it as an autoclave, as for instance when it is used without pebbles for sterilizing toothbrush bristles and other products which can be tumbled without injury.

It can be used for impregnation processes. As a matter of fact it would probably be an excellent idea to impregnate crude drugs with the menstruum before extracting. This could be done after the mill was charged by building up pressure through the steam jacket and then suddenly venting the steam to atmosphere. The sudden release of pressure would cause the menstruum to impregnate the drug thoroughly in which case extraction would be thorough and easy.

Homogenizer-Mixer

Last month we had a note on the Turbula mixer but we didn't have all the dope on it and hence could not give you an idea of its revolutionary characteristics. When you use this machine for making an emulsion you put the external phase into the tank and you feed the material to be dispersed into it *through the shaft of the propeller* from which it passes *through and is dispersed from the periphery of the blades.* In other words, the shaft and the propeller blades are hollow. The opposite end of the shaft is connected with a feed pipe or a supply tank. Shaft speeds up to 15,000 r.p.m. are obtainable. Its builder claims that a much finer dispersion can be obtained in this manner than is possible in some colloid mills. When you consider that this machine costs only a fraction of the price of a colloid mill, this statement is certainly worth checking. In a 25 gallon unit, sugar for simple syrup, is put into solution in 55 seconds. And that's speed! By means of the unique method of feeding the materials, this machine offers a means by which the nature of an emulsion can be changed at will from oil-in-water to water-in-oil depending upon how the materials are fed. Our education in colloidal chemistry is constantly broadening. We didn't know this could be done, because we thought that the nature of the emulsifying agent determined the type of emulsion. But we saw a case where the trick was turned. So we've been cock-eyed on this point all along. There are cases where the old rule holds true and not matter how the materials are fed, the emulsions conform to one type only.

Abbott's New Lab.

Abbott Laboratories has just completed an addition to its pharmacological testing and nutritional research laboratory, located at the main plant in North Chicago, Ill., S. DeWitt Clough, president announces.

This addition consists of about 4,500 square feet of floor area which will be devoted entirely to vitamin assay and research work. White albino rats are used exclusively for this work and the new addition will have a capacity of 4,000 rats, equivalent to from 100 to 150 simultaneous tests.

In recent years Abbott Laboratories has made available to the medical profession a line of vitamin products of wide variety. Each of the products made requires a separate assay to assure the consumer that the vitamin content of the product meets the label claims. This policy has necessitated the large increase in vitamin assay and research facilities.

In harmony with the rest of the plant, the recent addition is constructed of reinforced concrete. The exterior walls between the columns are of brick faced with a white glazed hollow tile on the inside. Steel Windows, steel interior partitions, steel shelving, and steel doors are used throughout.

The building is also fully insulated by the two inches of insulating board on the roof, the hollow tile and brick exterior walls, and by the "Thermopane" double window glass used in all windows.

The entire building, both old and new portions, has been air conditioned. The apparatus used for this purpose is located in a central room and the air distributed from there to the various rooms by means of ducts. A temperature of 75 degrees Fahrenheit and a relative humidity of 50 per cent are the conditions maintained throughout. The air in each room is changed ten times hourly. The majority of the air leaving each room returns through the hallways or through return ducts to the conditioning apparatus and is recirculated. Sufficient fresh air is constantly drawn in from the outside to change the air in the entire building three times per hour. The exhaust air which must leave the building every hour under this plan is drawn from the toilets and washrooms by means of centrifugal blowers.

The operation of the conditioning apparatus is entirely automatic and proceeds as follows. Fresh air from outside is drawn in, heated if necessary in the winter, and mixed with most of the return air from the various rooms. The mixture is then passed through a spray type air washer. The temperature of the spray water is maintained at 52 degrees Fahrenheit to insure the correct humidity in the building. The wash water is recirculated through a steam hot water heater which is used to warm the water if necessary to maintain the required temperature. Direct expansion coils are located in the spray chamber and are connected to an ice machine using Froon as a refrigerant. This ice plant is used to cool the spray water in the summer time.

The air after leaving the spray chamber is mixed with the balance of the return air from the various rooms and passed through an Owens-Illinois air filter. A heater located in the duct carrying the balance of the return air is used to raise the temperature of the mixture leaving the air filters to 65 degrees Fahrenheit. The air then passes through a blower and into the duct system for distribution to the various rooms. Each room has its own thermostat which operates its own heater located in the duct just before the entrance grill. The air entering each room is thus tempered sufficiently to maintain the room temperature at 75 degrees Fahrenheit. The entrance grills are of the diffusion type effectively preventing drafts which might otherwise be harmful to the rats.

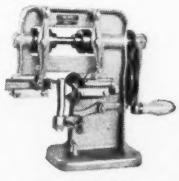
Air filters are also located on the exhaust grills between the various rooms and the halls. Were this protection not taken, dust contamination from the vitamin feed in one room might carry into another room where the rats were being fed a diet free of such vitamins.

Odors are held to a minimum by the frequent air change in each room, by the large volume of fresh air being constantly introduced into the building and

Not only FULL AUTOMATIC *but also:* MACHINES

A Complete Line of Hand-Operated and Semi-Automatic FILLING EQUIPMENT

No. 47 Hand-operated Tube Filler *Output 20 to 30 gross per day.*



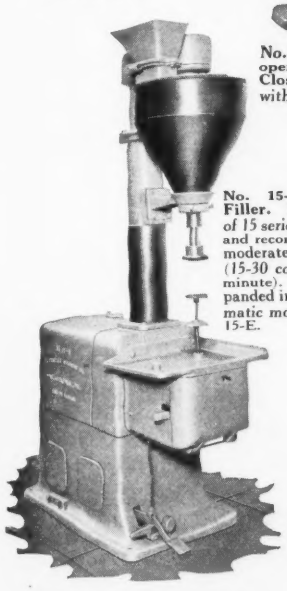
No. 49-A Hand-operated Tube Closer—For use with No. 47 Filler.

No. 48 Clipping Press (foot operated). Applies clips or (with proper jaws inserted) "DiamonLock" Closure (no clip required).

All models Tube Closers can be supplied to apply the patented STOKES Closure (no clip required).

DIAMONLOCK

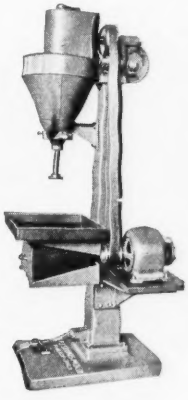
This closure (as made on the hand-operated and semi-automatic machines) consists of a double fold as shown, crimped into a neat, tight seal by deep indentations which do not encroach upon the edges of the folds. Secure and of fine appearance. Eliminates clips and saves tube metal.



No. 15-B Powder Filler. Basic model of 15 series. Hand-fed and recommended for moderate production (15-30 containers per minute). Can be expanded into full-automatic models 15-C or 15-E.

No. 79D-80A Tube Filler and Closer. Fills, closes and seals with the double-fold "DiamonLock" Closure. For liquids and semi-liquids and (with attachments) lighter pastes. *35 to 40 per minute.*

No. 2-C Tube and Jar Filler. For filling all kinds of liquid, semi-liquid and paste products into tubes, jars, cans or bottles. 20-30 per minute. Special metals as required.



No. 14 Powder Filler. A less expensive semi-automatic machine.

ASK FOR NEW CATALOG

FJS

FJS STOKES MACHINE COMPANY

Pharmaceutical Equipment since 1895

5932 TABOR ROAD OLNEY P. O. PHILADELPHIA, PA.

New York Office: 103 PARK AVENUE : *Los Angeles Office:* 1231 E. 7th STREET : *Cincinnati Office:* 230 WILMUTH AVENUE

by constantly changing the wash water used in the spray chamber.

The building is designed so that the animals may live under uniform conditions throughout the entire year. This fact, together with proper diet and breeding insures the pharmacological worker of a normal animal from which he may expect to get normal reactions from the various drugs and vitamin products being assayed.

New Closure Seals Collapsible Tubes Hermetically

A new type closure for collapsible tubes which is air-tight and stronger than the tube walls themselves has been developed by the F. J. Stokes Machine Company of Phila., Pa. With this closure it is said that manufacturers will be able to avoid losses suffered from leakage and corrosion. Seepage of oils, alcohol, kerosene and similar products is eliminated and the "breathing" of tubes, when they are subjected to wide fluctuations in temperatures, is said to be prevented.

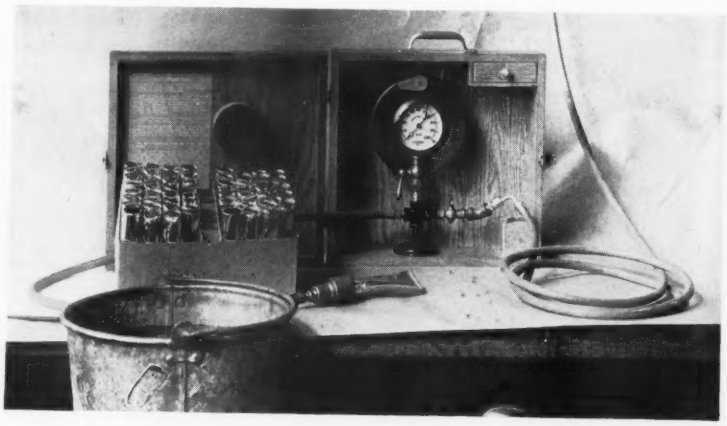
Beside being leak proof this new closure requires shorter tubes than current type clip or clipless closures and it is the expectation of the originators that because of this, the cost of the tubes ready for filling will not be materially affected.

This new closure requires that the open end of the tube be precoated with a special adhesive both inside and out to a width equal to the portion of the tube to be used in the fold. This precoat is applied by the tube manufacturer so that the tube user buys his tubes already prepared for filling and sealing. The fold is made automatically with heated jaws which perform the standard folding and crimping operations as well as the cementing process.

The chart shows in a graphic way the strength and security of this new seal as compared with current type closures as revealed by testing thousands of tubes. The ordinary double fold closure secured with a separate clip had an average leak resistance of 3 lbs. and an average bursting strength of 16 lbs. Tubes with a closure of the so-called clipless type showed an average leak resistance of 3 lbs. and an average bursting strength of 11 lbs. In contrast to these, the new air-tight seal showed an average leak resistance of 47 lbs. and an average bursting strength of 48 lbs. Most of the tubes tested burst the tube walls themselves before the closure either leaked or burst.

In one of the tests a gross of tubes was filled with kerosene, which seeps through ordinary closures almost immediately, and after being closed with the new air-tight closure, they were allowed to stand upright for a period of six months without a leak developing.

It is said that tubes precoated for this new closure can now be supplied by some of the tube manufacturers and it is expected that its use will not only prevent the losses and rejections formerly experienced but will make it possible to package many new products in tubes.



TUBE TESTING UNIT

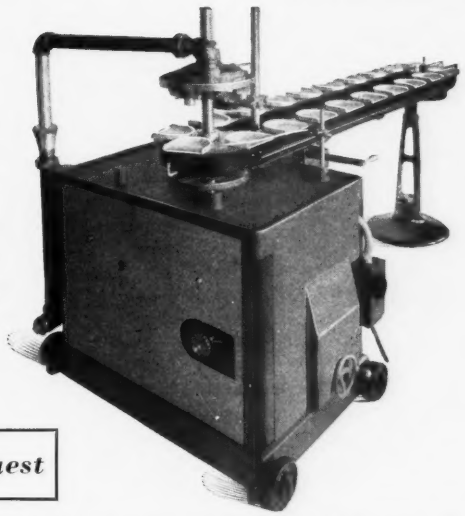
SHOWING BURSTED TUBES WITH TIGHT CLOSURES

ABBE COSMETIC TESTING LABORATORY

ACCURACY OF FILL!

KARL KIEFER

New KIEFER VARI-VISCO FILLING MACHINES



The New Kiefer Vari-Visco Machine assures constant, steady production, handles all kinds of containers with ease—pays for itself in a short time. Designed for "tomorrow" . . to meet the strict demands of today.

Catalog On Request

All containers filled with absolute uniformity and accuracy.

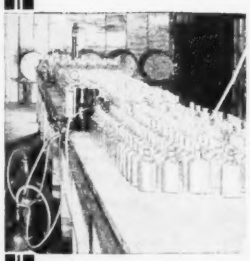
Yes, and a dozen other features to help you do a better packaging job.

For packaging cold cream, salve, and similar semi-fluid products. A simple, practical, efficient machine, amazingly accurate at all times.

THE KARL KIEFER MACHINE CO., Cincinnati, O.

RAPID-ACCURATE BOTTLE FILLING

At Lowest Cost



Bottles of all sizes, shapes and styles are filled quickly and with minute accuracy with the HY-SPEED filler. It will fill bottles of from ½ dram up to 40 ounces—odd or standard sized. The machine can be moved about quickly and easily and operated anywhere in the plant.

The HY-SPEED bottle filler is most economical, for its initial and operating costs are very low. This factor coupled with that of its adaptability in filling all styles of bottles have made it very popular in the drug industry.

Ask for a free trial. There is no obligation, you know.

MFRS. OF ULTRA FINE DISC FILTERS ● MIXERS
BOTTLE FILLERS ● PUMPS ● GLASS COATED TANKS

Write for a Catalog

ALSOP ENGINEERING CORPORATION
39 W. 60th Street New York City

OUR NEW LINE!

"Highest Speed for Efficient Liquid Handling"

- PORTABLE VACUUM BOTTLE FILLERS
- SIPHON BOTTLE FILLERS
- FILTERS
- PORTABLE ELECTRIC MIXERS
- GLASS-LINED TANKS
- CONVEYOR TABLES, ETC.

Write for information

The Fastest Hand Tube Filler

for Large or Small Manufacturers

Our No. 6A Hand-Operated Tube or Jar Filler, illustrated here, can also be supplied with direct motor drive and clutch.

We also manufacture hand operated and motor driven Tube Closing, Clipping and Clipless Machines, Package and Powder Box Filling Machines, Glass-Lined Tanks, Conveyors, Pony Mixers & Ointment Mills.

Send for new Catalog No. 5

GEORGE G. RODGERS CO.
183 VARICK STREET NEW YORK CITY
WAlker 5-6892 Established 1890

Deodorized Kerosene

(*Continued from page 245*)

The same principle applies in the manufacture of brilliantines which should be designed to treat the hair so as to secure a glossy effect and straightening properties without using an excessive amount of oil which would tend to make the hair greasy and sticky. It is impossible to do this with ordinary low viscosity white mineral oils of non-evaporating properties but the admixture of from 25 to 50% of completely refined kerosene with white mineral oil, makes it possible now to secure a much finer dispersion of the white mineral oil, since the deodorized kerosene will evaporate, leaving a very fine film of the white oil deposited on the hair and scalp. Such a brilliantine would also have tonic properties. These same qualities also suggest its possible application for the preparation of non-greasy suntan oils.

A further interesting feature of completely refined kerosene is its extremely *low surface tension* which suggests its use as an excellent solvent for medicaments for all purposes where it is desired to secure contact with the skin or with tissues in the shortest possible time, as in the case of antiseptics and liniments as well as for an extremely wide range of applications where low surface tension is essential.

Ability to penetrate the skin is a direct result of the low surface tension and low absolute viscosity of deodorized kerosene. This property enhances its value in the manufacture of liniments, antiseptics, chest rubs, facial creams, hair tonics and in fact for all preparations which must exert a deep-seated effect.

As seen from its *low boiling range*, completely refined kerosene can be easily dispersed into a fine mist creating a vapor which suggests its applicability in the composition of inhalants. Therefore, this oil in combination with essential oils and highly volatile solvents suggests itself as a stabilizer capable of securing a most lasting application.

Because of its extremely *low pour point* this oil will not become cloudy or solid at low temperatures. Hence it suggests itself as a useful constituent with white mineral oils, particularly those of paraffin base nature to counteract the tendency to cloud at low temperatures. This same principle might also find application in the manufacture of various types of shampoos.

In view of the fact that ordinary kerosenes have been used for the extraction of crude drugs such as pyrethrum flowers and derris root, it is suggested that the *solvent properties* of deodorized kerosene make it especially desirable as a solvent for the extraction of certain crude drugs used for medicinal purposes. Its relatively *low volatility* as compared to alcohol and acetone, which are widely used as solvents in drug extraction processes, may make it a better solvent, besides being a cheaper one.

It has long been known that light hydrocarbon distillates exert a very beneficial effect on certain types of acute dermatitis such as poison ivy, ringworm, athletes foot, exczema and similar skin diseases. Deodorized kerosene will no doubt extend, the range of its usefulness in this particular field.

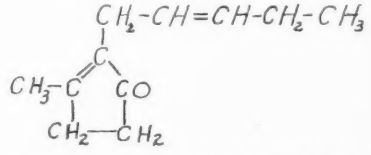
Deodorized kerosene is also available in an emulsified form. In its emulsified form, water can be added in almost any desired proportions resulting in a permanent milky white product. This suggests many uses particularly in the cosmetic field, for instance in the manufacture of hand lotions and liquid creams. To the emulsion the required amount of soap and vegetable mucilages can be added to give it body under a wide range of temperatures. When necessary, such emulsions may carry water soluble medicaments of the proper type.

Work already done by numerous well-known firms in the trade indicates that on account of its peculiar physical and chemical properties deodorized kerosene is one of the most interesting new materials developed in recent years.

Constitution of Jasmone

The essential oil obtained from natural jasmine flowers contains about 3% of a ketone, known as Jasmone, the presence of which contributes in a great degree to the characteristic odor of the natural jasmine. This ketone has been the subject of scientific study for many years, for the purpose of determining its chemical constitution.

L. Ruzicka & M. Pfeiffer have reported in a special communication to the Swiss Chemical Society, Sept. 26, 1933, "On the Constitution of Jasmone," that as a result of their investigations they have been able to establish that Jasmone is a Cyclo-pentenone derivative of the following chemical configuration:



Dihydro-jasmone, in which the double bond of the side chain in the above formula is hydrogenated and is known chemically as 3-Methyl-2-amyl-△2.3-cyclopentenone, was synthesized by Staudinger & Ruzicka (Helv. chim. Acta, 7, 257-1924), who now describe this product as having the typical odor of Jasmone, but somewhat modified. A Tetra-hydro-jasmone was also prepared by the catalytic reduction of the dihydro-compound.

This same Tetrahydro-jasmone has been prepared synthetically by W. Treff & H. Werner, Berichte, 66,239 (1933), which was previously described by Staudinger & Ruzicka, (Helv. chim. Acta 7, 239-1924).

It is claimed by Treff & Werner that this product has a strong but pleasant odor similar to that of Jasmone extracted from the natural jasmine.

Treff & Werner further report that they have filed patents covering the use of Dihydro- and Tetrahydro-jasmone as perfume materials.

No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

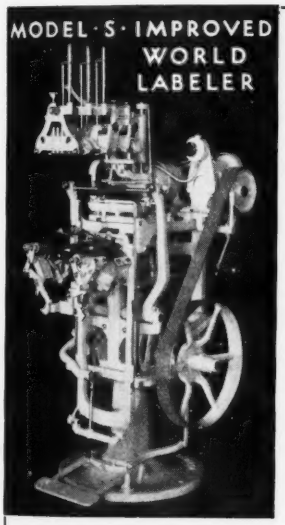
Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.
Detroit, Michigan

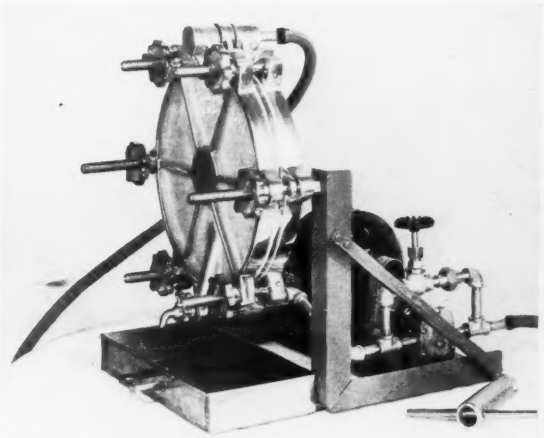


The most flexible labeling machine. Easily equipped for labeling any size bottle or jar. This wonderful machine has many exclusive mechanical features, developed by manufacturing experience of more than thirty-five years.

ECONOMIC MACHINERY COMPANY

WORCESTER, MASS.

Makers of complete line of automatic and semi-automatic labelers.



ERTEL 2-DISK BENCH MODEL FILTER

This filter comes complete with pump and motor and uses two Ertel asbestos filter sheets. Pump capacity two gallons per minute. This type filter can be increased to a four disk by purchasing two additional rings.

MANUFACTURERS OF

Ertel Asbestos Disk Filters, Ertel Asbestos Filter Sheets, Alleghany Stainless Steel Tanks, Portable Bottle Fillers, Glass-Lined Tanks, Portable Mixers, Pumps, Etc.

ERTEL ENGINEERING CORP.

105 EAST 16th STREET NEW YORK, N. Y.

READERS'

Inquiries must be addressed department on the letterhead of firms. Inquiries from private

Discount Policy

We are marketing a new drug specialty of the laxative class. We would like to know how to arrange our discounts. What is the regular policy, and do manufacturers as a rule give an extra 15 per cent. to chain and variety stores who buy in gross lots. We would appreciate your advice on what policy we should agree upon. Philadelphia.

The regular discount schedule is 33⅓ per cent. off the list retail price for the retailer. The wholesaler is generally allowed 15 per cent. off the price to the retailer. There is an infinite number of varieties from this schedule depending upon whether the manufacturer sells retailers direct; whether he has preferred retailers; whether chains give him special services; whether he gives an increasing percentage of free according to the size of the order, etc. Some manufacturers give an extra 15 per cent. off for gross lots whether the buyer is a retailer or a wholesaler. Others give the 15 per cent. only to the wholesaler. Some manufacturers give the free goods to the buyer whether he be retailer or wholesaler, while others send the free goods only direct to the wholesaler even though the purchase is made through a wholesaler.

A main consideration in the establishment of a discount policy is whether or not you have distribution. Quick distribution for a new specialty can be obtained by giving special discounts to the large chains. But if your product has distribution, these special discounts react against the sale of the product in independent stores. From this outline of conditions perhaps you can solve your problem.

Dinitrophenol in Obesity

We understand that alpha-dinitrophenol is an excellent product for reducing weight. What do you think of it? Is it as good as products containing thyroid? We have hesitated to put out a product containing thyroid because we believed it was dangerous. Is this product safer? Toledo.

Alpha-dinitrophenol for obesity has been treated in several articles in the "Journal of the American Medical Association" issues of July 15, 1933; October 21, 1933; November 4, 1933; February 17, 1934. Dinitrophenol is an explosive product, only one step removed chemically from TNT, which is trinitrophenol. The actual product being used for obesity in most cases is sodium dinitrophenol.

The product stimulates the metabolism of the body and therefore burns up the fat producing products. There is no question as to its ability to take off weight. However, a warning must be given that over-doses will cause a very high fever with probable death.

As compared with thyroid, the product has reduced weight where thyroid has failed to do so. As regards its general safety, there are comparatively few patients who develop any side reactions such as a skin rash. However, these are easily cleared up. But there is still some idea that the product is cumulatively toxic to some few individuals, and until this fact is definitely ascertained, the general sale of it over the counter is not advised.

Labels and New Drug Act

We are in a predicament concerning the proposed Food, Drug, and Cosmetic Act. What should we do regarding the purchase of labels in the event that such a bill is passed and thus makes our present labels in violation of the new act? New York.

In the first place the new act will not become effective until six months after it is signed by the President. In the second place the act has not yet been passed by either branch of the Congress and such passage will take quite some time yet. In the third place there is no positive indication that your labels will be in violation of the new act if they are not in violation of the present act. As you no doubt know, the present act is quite strict with regard to label statements, and if the Department has not bothered you under the present law, they are not likely to bother you under the new law. It is only advertising copy that will feel the change to any great extent. Therefore, we believe that you should go right ahead and order new labels in accordance with the present law but do not order greater than a six months' supply if possible.

Colored Bottles

I am about to package some new products, one of these being milk of magnesia. Is there any special benefit to be derived from using blue bottles? I notice that all brands of this product use blue glass. Why is this? Likewise, should I use amber colored bottles for cod liver oil? Cincinnati.

The only reason for using blue glass for packaging milk of magnesia is that the product looks better in blue glass than in clear glass. On the other hand, amber glass does have a protective effect upon the destruction by sunlight of the vitamins present in cod liver oil.

Stabilizing Ephedrine

Please suggest something to stabilize or to preserve ephedrine in oil solutions. We have tried 1:1000 solution of anhydrous trichlorobutyl alcohol but still get a garlic-like odor after a few days. Durham, N. C.

This is a hard nut to crack. Your trouble is not due to bacterial decomposition but to oxidation. Without considerable research we cannot be certain as to what will be most effective as an anti-oxidant but we suggest that you try 1% of hydroquinone. This may work but without having made a trial we cannot be sure. Some manufacturers mask the odor with essential oils.

Balsam Peru in Hair Products

How do you iniect Balsam Peru in preparations for hair ointments and hair tonics? Heat and alcohol separates it and causes the preparations to be filled with specks. Washington, D. C.

This puzzles us because balsam of peru is soluble in alcohol. It is also soluble in chloroform and glacial acetic acid, with which it become slightly opalescent. If you are using a sufficient quantity of alcohol you shouldn't have any trouble. Although you haven't sent us the formulas our guess is that something else is contained in them which is incompatible with the balsam. It is also possible that you may not be using a pure grade in which case impurities not soluble in alcohol may be present.

QUESTIONS

individuals cannot be considered. This service is limited to the trade only.

Hypodermic Tablets

A couple of years ago we read an article by Mr. Chilson on tablet making. Have you ever published an article by him on hypodermic tablets. Is so we would like to get a copy of it. What we are interested in at this time is: What is the best liquid to use in massing the ingredients. We have heard that some makers use dilute alcohol and a little syrup mixed. Others use different percentages of alcohol for ¼ and ½ grain morphine and codeine hypodermics. Also it is claimed that beta lactose makes a more readily soluble tablet than does the regular or alpha lactose. If it is not asking too much we'd appreciate any information you can give. Philadelphia.

We have not yet published an article on hypodermic tablets. In regard to massing the ingredients the usual practice is to make a mixture of four-fifth of lactose (milk sugar) and one-fifth of cane sugar. The drugs are added to this mass and the whole is mixed. Then alcohol is sprayed on until the mass is sufficiently dampened. Then the tablets are pressed out at once.

Lithopone in Powders

Is lithopone toxic for external use. We are very anxious to know about this because we have been using it in medicated dusting powders and also in face powders for quite some time. We have never had any complaints on the score of toxicity yet but if there is anything poisonous about this material we want to substitute something else for it right away. Philadelphia.

Lithopone has been under some suspicion and there are numerous references in the literature as to its probable toxicity but these references do not give any supporting data. We do not believe that a pure grade of lithopone is toxic at all. We have a copy of a letter from Dr. C. K. Drinker, of the Department of Physiology of Harvard University, who says in Part:

"The long and short of our six years work was that we were never able to get evidence that zinc itself is poisonous as lead or arsenic, for example, are poisonous. In the course of our observations we had occasion to study the health of workers packing lithopone. By examining their urine and feces it was possible to show that they were excreting very large amounts of zinc sulfide and it was passing through them without giving the slightest evidence of damage to the lungs, the kidneys or the gastro intestinal tract. We were able to ascertain that the general health of lithopone workers was excellent . . . My associates and I were forced to conclude that where poisonous symptoms were reported in men handling zinc compounds, they could invariable be traced to contamination with other metals."

There is a very interesting clinical and laboratory report on this subject in the Journal of Industrial Hygiene, Vol. VIII, August 1926, Dr. R. P. Batchelor, J. W. Fehnel, R. M. Thompson and Dr. Katherine R. Drinker. The result of their work lead to the conclusion that the zinc compounds are definitely non-toxic.

Lanolin and Oil Emulsion

Is it possible to make a stable liquid emulsion having both lanolin and oil as part of the ingredients. If possible what emulsifying agent should be used. Glendale, N. Y.

It is possible. You may use triethanolamine, triethanolamine stearate, glyceryl monostearate, ethylene glycol with a little caustic soda.

U. S. P. Menstruum

Our firm has been making flavoring extracts for many years and we have now decided to expand our activities inot the drug field. In looking over the U. S. P. requirements for extracting the crude drugs we wish to use we notice that the prescribed menstruum is alcohol in every case. It so happens that we have our own ideas amd methods of extracting drugs and we like to know whether we can use some other type of solvent so long as the finished extract meets all U. S. P. tests and requirements. Chicago.

The pharmacopeia permits variations in the menstruum used for drug extraction and also in method of extraction. You need have no worry on this score.

Tissue Cream

We make the following tissue cream. When stirring a foam is produced which does not dissipate. This makes it difficult to fill jars without some of the foam on top, and after hardening, the foam becomes cheesy and darker than the rest of the cream. If poured cooler there is a tendency to streakiness on the top. Do you suggest capping the jars immediately after filling. We would appreciate it if you did not publish the formula. The Readers Questions section of the magazine is the first one we read and we consider it one of the very best features of your magazine. St. Louis.

Foaming is due to many factors. Impurities in the raw materials. Failure to balance temperatures during manufacture. Excessively rapid mixing. The wrong type of mixer. The incorporation air consequent upon the use of the wrong type of mixer. In your case we make these recommendations: Eliminate the borax; it contributes nothing to this formula since you have enough lanolin to make a stable emulsion. Don't allow the temperatures of the melted fats and waxes to get any higher than necessary. Be sure to have the water one or two degrees higher than the melted fats when you add it. Don't mix the cream from the top unless you have a slow flat blade agitator. Mix from the bottom or through the side of the tank or use a pony mixer type of agitation which is relatively slow and uniform and utilizes flat blades. Finally draw off the cream from the bottom of the tank instead of pouring it from the top in case you are using a top driven agitator which is too fast. Allow the cream to cool before capping. And don't use oil soluble colors. This undoubtedly causes the streakiness of which you complain. Use insoluble colors and rub them up well in a little oil or perrolatum before adding to the batch.

Extracting Belladonna

For the last twenty-five years we have been extracting belladonna in the usual way concentrating the extract to dryness in evaporating pans. Lately we've been running a series of tests in our new laboratory and we find first that what we extract in the factory isn't as strong as what we extract in the laboratory and second we find that for some reason or other we don't seem to be able to make a batch yield as much as the laboratory sample. Can you suggest any reasons for this. Chicago.

This is interesting but not unusual. To secure maximum strength and percentage of extract you should extract and concentrate under vacuum and your vacuum extractor should be equipped with an agitator to stir up the marc and bring the menstruum into contact with every particle. If you had laboratory tests during the last twenty-five years you have discovered that your method of processing was inadequate for this type of drug.

THE COMPOUNDERS' CORNER

Eye Cosmetics

Along with a complete line of beauty preparations in modern beauty parlors, eye cosmetics are increasingly popular. As the latter are formulated differently for various purposes, we shall here cover general considerations, omitting unessential details.

Eyelash growers are creams, pomades or salves, whichever form is preferred, whose main constituent is generally yellow petrolatum. The product must have a stimulating effect upon the growth of eyelashes and eyebrows. When darkening is produced simultaneously, such preparations are used for eye-shadows. Two recipes follow: (a) 50 parts of yellow petrolatum are melted with 50 parts of turtle oil and the mixture perfumed as desired; (b) 50 parts of yellow petrolatum, 49 parts of castor oil and 1 part of paraffin wax are suitably worked together. Either preparation, made according to (a) or (b), can be used to cause darkening through the addition of burnt sienna or burnt umber. If decomposition is in any way possible, a suitable preservative, such as an ester of parahydroxybenzoic acid, may be added. Perfuming may be done with lavender oil or bergamot or both.

Eye creams are to be used to prevent or, if necessary remove wrinkles which form in the outer corners of the eyes. These preparations must contain a large proportion of a nourishing substance. The following recipes may be considered typical examples of this type of cream: (a) 50 parts of lanolin, 20 parts of olive oil, 10 parts of castor oil, 20 parts of turtle oil and preservative as required; (b) 5 parts of lecithin, 1 part of cholesterol, 10 parts of lanolin, 59 parts of pressed almond oil, 25 parts of beeswax and sufficient preservative. Both are perfumed as desired. A marketed preparation of this type is perfumed with violets, sharply distinguishing it from ordinary creams.

A *balsamic eye oil* is an oil preparation for coating the eyebrows and eyelashes. A typical product has the following constituents: 25 parts of castor oil, 25 parts of sweet almond oil and 0.5 parts of perfume. The perfume should contain a mild stimulating substance as, for example, camphor oil. A formula is 10 parts of storax oil, 45 parts of castor oil and 10 parts of synthetic rose oil. The mixture should be allowed to stand for some time before decanting. It must be crystal clear and should be slightly aromatic. An addition of 0.5% caritol, containing vitamin A, is advantageous since the vitamin is useful in the care of the eyes. Caritol is a 0.5% solution of carotene in oil.

Eye herbs are special cosmetic preparations. Mixtures of definite herbs and drugs are packed in small, closed bags. Useful combinations may be made from Rosa gallica, witch hazel leaves, peppermint, elder leaves, lavender leaves, boric acid and camphor. Special care is necessary for the proper choice and mixing of the ingredients. Boric acid, witch hazel, peppermint oil, lavender leaves and camphor in small portions are especially suitable. The herbs are coarsely ground and packed into little sacks made of material which does not readily part with absorbed water. In use, the sacks are dipped for a moment in slightly warmed water and then applied to the eyes. Direct warming is not desirable as the preparation should have a pleasant cooling effect. The treatment may be repeated.

Eyewashes are made according to numerous, well-known formulas which will not be repeated here. The finished preparation must be crystal clear and be well preserved. Parahydroxybenzoic esters are recommended for preservation.

Many new color shades are used in *eyeshadows*. Green, brown and blue are regularly used for make-up. The heavy paste carrying the color is usually made from petrolatum. If a heavy base is desired, paraffin wax may be added. One preparation now being sold gives a pearl-like tone, as a novelty.

For the purpose of making the plucking of superfluous hair from eyebrows less painful, an anesthetizing cream is applied beforehand. The preparation is rubbed in well about a half-hour before the tweezing is started. Any satisfactory cold cream base is mixed with 1% of ethyl aminobenzoate.

Eye cosmetics are generally only slightly perfumed, so that lavender and bergamot are popular. So-called egg-yolk eye creams contain a certain amount of egg-yolk lecithin. Finally, the effect of animal, vegetable or mineral oils in promoting the growth of eyebrows and eyelashes has not yet been definitely proved, so that claims must be made cautiously.

Treating Skin Imperfections

Enlargement of pores is wrongly attributed to age, particularly where cosmetics have been incorectly used. Cosmetics especially suited for the purpose are the only ones of any use; the skin, carefully freed from oil should be treated with the following lotion, or one similar to it: 10 g. glycerine, 28°; 5 g. boric acid; 850 g. 96% alcohol; 625 g. distilled water and 15 g. perfume composition. Face creams, used for cleansing, must always be carefully removed and followed by the application of an astringent solution, e.g., 630 g. 96% alcohol, 10 g. glycerine, 40 g. 80% acetic acid, 10 g. Cologne-water oil and 310 g. distilled water. A night cream according to one of the following formulas should be applied in a thin layer to permit respiration of the skin. (1) White wax 60 g., 70 g. spermaceti, 10 g. stearin, 630 g. peanut oil, 5 g. borax, 225 g. water and perfume; (2) 125 g. woolfat, 100 g. coco butter, 75 g. spermaceti, 75 g. white wax, 600 g. peanut oil, 15 g. benzoic acid, 10 g. perfume; (3) 100 g. spermaceti, 100 g. white wax, 200 g. cocobutter, 50 g. woolfat, 525 g. peanut oil, 15 g. benzoic acid, 10 g. perfume; (4) 30 g. lecithin, 75 g. woolfat, 100 g. spermaceti, 125 g. white wax, 50 g. coco butter, 595 g. peanut oil, 15 g. benzoic acid, 10 g. perfume. This treatment, in combination with a little facial massage, will produce beneficial results.

Blackheads are formed when pores are stopped-up by fat and dirt. This condition is brought about by ignorance; proper care will prevent the pores from becoming clogged. In the treatment, the skin must first be softened and cleansed, best by means of a steam bath; powder and dirt may then be painlessly and thoroughly removed. After the pores are freed from the impurities, they must be treated with an astringent. An insensitive skin may be dabbed with a little alcohol or an astringent liquid made from 3 g. borax, 8 g. sodium sulfate, 300 g. distilled water, 15 g. glycerine, 150 g. triple strength rosewater. Tender skins are treated with an antiseptic cream, e. g., an acid cream of the following composition: 100 g. vaseline, 30 g. paraffin, 60 g. vaseline oil and 5 g. sodium perborate, with suitable preservatives added. An oily skin should be washed with acid solutions, such as dilute acetic acid, lemon juice, or the following mixture: 25 g. Japanese camphor, 850 g. 96% alcohol, 25 g. 28° glycerine, 1570 g. distilled water and 30 g. perfume.

Freckles may be bleached with a cream or a lotion (5 g. borax, 1 g. potassium chlorate, 15 g. Cologne water and 50 g. rose-water or 170 g. sodium perborate, 69 g. boric acid and 1000 g. rosewater). They are either removed completely or lose so much of their color that they blend with the skin and become invisible.

ODOR INSURANCE

• • • ANCIENT and MODERN

Fixation of their perfumes was the primary consideration of the ancient Egyptians and Greeks. Gums and resins as well as other materials of a pleasant, tenacious nature were employed to insure the lasting quality of the perfumes.

The discriminating public of our present age demands this same quality and further requires that the fixative lend an inimitable note to the finished fragrance.

We have called upon the combined facilities of our extensive foreign connections and our own modern, thoroughly experienced organization to produce, with the aid of the secrets of the ancient perfumer, fixatives that will serve as "odor insurance" for MODERN preparations.

Years of research were devoted to this enterprise and notable results have been accomplished. Our knowledge and findings on this subject are at your disposal and we will gladly furnish detailed information covering your individual problem upon request.

May We Suggest

Rose Aldehyde F.
Fixative Otto C. P.
Amber Synthetic 15 A.
Opoponax Concrete F. M.
Civet Aromeide Organico
A Dhumez Opoponax
or perhaps a
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Tooth Paste

A good tooth paste formula is the following: 100 g. neutral, white soap; 65 g. stearic acid; 35 g. ethanolamine stearate; 100 g. concentrated aqueous saccharin solution; 6-10 g. ethereal oil as desired; 700 g. water. Melt over a moderate flame without permitting to boil. Stir until cold. Another tooth paste may be made as follows: 125 g. white, neutral soap; 75 g. stearic acid; 35 g. ethanolamine stearate; 55 g. saccharin water; 10 g. etheral oil; 700 g. water.

Zinc Stearate in Cosmetics

Because of its particularly small particle size, in addition to its other properties, zinc stearate is highly suitable for use in cosmetic preparations. Zinc stearate cream: Use 150 g. glycerine, 100 g. water, and 80 g. zinc stearate. Rub the stearate with the glycerine and add the water in small portions. The resulting cream is soft, white and homogeneous. A lanolin cream is made from the following components: 325 g. lanolin, 35 g. ceresin, 150 g. mineral oil and 150 g. of water. Perfume as desired. Add 5 to 10% zinc stearate to the salve to obtain a cream particularly suitable for use with a dry skin.

Disinfectants in Cosmetics

In line with the present tendency to make cosmetic mixtures satisfactory not only for beauty treatment but also as hygienic preparations, antiseptic ingredients should be added. The special requirements are far from easy to meet: the substances must be easily soluble in water, rapidly develop high activity, be harmless and cheap. They must not irritate the skin and should be non-poisonous.

The new disinfectants described below may be used singly or in mixture with each other in combination with inactive powders such as talcum, in creams, in solution o in suspension.

Silver chloride silicic acid gel is one of the newer substances. It is a fine, white powder. Small additions of this substance to usual powder bases are sufficient to give strong germ-killing power to dusting powders. For example, 10 parts of silver chloride silicic acid gel, powdered; 40 parts of purified silicic acid; 35 parts of talcum; 105 parts of rice starch powder and 5 parts of magnesia form a mixture which, because of its strong absorptive power, readily absorbs perspiration.

Very active preparations arise from the chlorination of phenols. Examples are trichlorphenol and trichlorocresol; however, their very strong odor prevents extended use for cosmetic purposes. Chlorination of thymol isomers such as carvacrol gives rise to monochlorcarvacrol, a strong bactericide, practically non-poisonous, harmless to the skin, having good deodorizing power and only very slight odor. Its disinfecting power is far greater than that of phenol, being a little less than that of corrosive sublimate, while it is far less poisonous. It is a good foaming agent.

The p-chlor-derivative of m-cresol, mixed with a soap solution, gives a light brown oily, pleasant-smelling liquid that is strongly antiseptic in 1—5% solution. It has been used for some time as a personal antiseptic and there seems to be no reason why it should not prove useful in cosmetic practice.

The chlorination of thymol gives a very useful substance. It is much more difficultly soluble in water than is thymol, yet it exhibits definite bactericidal power in 0.03% aqueous solution. The use of soap makes possible much higher concentrations of the chlorthymol and a 10% solution has a disinfecting power hitherto reached only with cresol or chlorcresol. It has only a slight odor and is harmless.

Recently, the p-hydroxybenzoic acid esters have come into prominence. These are white, odorless and tasteless powders which, as alkali compounds, are soluble in water. The disinfecting power increases with the molecular weight of the alcohol radical, the benzyl ester being the strongest. These esters are added to confer germ-killing power or to prevent rancidity in cream components. They are entirely harmless and are being used in mouthwashes, in facial lotions and for washing purposes, in concentrations of 0.03-0.1%.

A new phenol, tertiary p-amylphenol, has recently been prepared industrially. It is a white, crystalline mass, almost completely soluble in 10% caustic potash. The low-priced commercially pure product contains less than 1% of phenol and traces of tertiary o-amylphenol and amylphenyl ether. It has a phenol coefficient of 50 and is therefore a very active germ-killer. Its odor is pleasant and faintly reminiscent of camphor. The amylphenol must be greatly diluted when used for cosmetic purposes as it shares the irritating properties of unsubstituted phenols

Lemon Juice for Cosmetics

Preparation of lemon juice for cosmetic purposes is the simplest imaginable, lemons being run through a juicing machine. The juice is collected in wooden containers and at once made stable by the addition of chemical preservatives. This juice is stable for a long time.

It is better to store the juice in completely full kegs or dark-colored glass containers (green or brown glass carboys or demijohns). Lemon flavor may be obtained from lemon peel by the same process that is used in French perfume factories for obtaining floral odors.

For this purpose, the peel recovered from the juicing machine is not satisfactory. The lemons must first be peeled in a peeling machine, the peel being cut so thick that its oil cells are not broken; otherwise the ethereal oils contained in the outer layers of the lemon peel will be lost by evaporation.

The peelings are placed in a wooden vessel and are completely covered with chemically pure glycerine, which need not be used in excess. The extraction is allowed to continue for 3 days at about 30° C.; then filter the glycerine containing the lemon-peel aroma through filter cloth into carboys or demijohns. The product is entirely stable and may be kept for several years.

Syrupus Ferri Chlorati

Syrupus ferri chlorati may be prepared from the following ingredients without the use of heat. Powdered iron 35 g., 17% hydrochloric acid 153.6 g., sugar 670 g., 10% hypophosphorus acid 10 g., distilled water to make 1000 cc. The syrup contains 0.0454 g. ferrous chloride per cc.

Extr. Chamomillae Fluid

To make fluid extract of chamomile, the following procedure has been found effective. Four kg. whole chamomiles are saturated with 4 liters of a mixture of equal volumes of water and 90% alcohol and allowed to stand 3 hours. Place mixture in a percolator and add above alcohol-water mixture until the first drops of extract begin to come through; close the bottom stopcock and allow to stand for 48 hours. The next procedure may be called a fractional percolation. Percolate with 25% alcohol at the rate of 50 drops a minute, more slowly with smaller quantities. The extract is divided according to the following scheme: 1.4 kg. first run I, 2.2 kg. second run I and 12 kg. third run I. Press the chamomile residue and add the liquid to a new batch.

Now saturate 2.6 kg. chamomile with second run I and percolate with third run I. From this we obtain 2.6 kg. first run II, 0.8 kg. second run II and third run II until all of third run I is used up. Again saturate 1.4 kg. chamomile with second run II and percolate with third run II. Obtain 4 kg. first run III. The three first runs are mixed and filtered to give the finished extract.

The same process is used to make Salbei fluid extract, using the coarsely powdered drug.

Pine Oil Analgesic

Oil of pinus pomilio montana is used for this purpose. In one salve 50 parts oil of pinus pomilio montana are mixed with 150 parts anhydrous wool grease, 100 parts white beeswax, 150 parts distilled water, 120 parts menthol and 75 parts methyl salicylate. In another composition 8 parts oil of pinus pomilio montana are mixed with 125 parts rendered tallow, 125 parts lanolin or petrolatum, 4 parts camphor and 6 parts menthol. Addition of pine oil improves analgesic properties of these mixtures.

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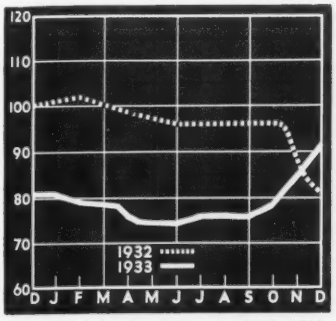
ALCOHOL NEWS

MARCH ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1934

ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931 = 100)

ETHYL ALCOHOL PRODUCTION

		1933	1932
PRODUCTION			
1000 proof gals.	Jan.-Dec.	138,189	128,819
	Dec.	15,396	5,278
	Nov.	15,979	7,391
SALES			
1000 proof gals.	Jan.-Dec.	137,466	117,094
	Dec.	12,703	7,484
	Nov.	21,771	8,703

ALCOHOL MARKET FIRM

The alcohol market remained exceptionally firm during February. Large bulk movement of C. D. 5 for the anti-freeze trade was recorded, due to the continuance of favorable weather. Demand for the other formulas of industrial alcohols has been good, reflecting improved conditions within the trade.

The year end figures for production of pure ethyl alcohol made a surprisingly strong showing, bringing the total for the year well ahead of 1932. This is particularly encouraging because the stocks on hand at the end of 1933 were well reduced.

MASON JOINS U. S. I. ALCOHOL CO. AS ASSISTANT TO THE PRESIDENT

The appointment of J. Tenney Mason as assistant to the president of the U. S. Industrial Alcohol Co., effective February 15th, was announced by Charles S. Munson, president. All of the company's activities in the molasses business will be under the supervision of Mr. Mason who is now in Cuba inspecting the properties and plants of the company.

Mr. Mason, a Swarthmore graduate, joins U. S. I. after serving over eighteen years with E. I. DuPont de Nemours & Company, Inc.

Mr. Mason will have his headquarters in the executive offices of U. S. I. in the Lincoln Building, New York.

NEW INSTITUTE COMMITTEE

A Traffic Committee has been formed by the Industrial Alcohol Institute for the purpose of presenting a united opinion in dealing with problems and regulations relative to transportation which pertain to the Alcohol Industry as a whole.

H. W. MacArthur, Traffic Manager of the U. S. Industrial Alcohol Co., was named chairman of the committee.

* * *

A new compound which is said to be suitable as an artificial musk has been patented. It is made by the further butylation and subsequent nitration of 1- methyl- 3-methoxy-6-tertbutylbenzene.

ADEQUATE SOLVENT REQUIRED TO INSURE GOOD COSMETICS

In the formulation of cosmetics, it is necessary to consider the best methods of keeping the preparations from deteriorating on standing.

The use of good quality ingredients is, of course, essential. Another factor of safety, but one which is frequently overlooked, is to use an amount of alcohol which is adequate to keep the ingredients in solution. The manufacturer should use sufficient solvent, not only to insure good condition of the product when it is sent out, but enough to guard against deterioration and consequent sales loss after a period of standing. The alcohol concentration is sometimes so low that a slight resinification of essential oils, a change in reaction of the solution, or perhaps a lowering of temperature will cause the product to develop turbidity followed by the formation of actual precipitates. Such a condition may render the preparation entirely unsalable.

ANHYDROUS ALCOHOL AS A SOLVENT FOR NITROCELLULOSE

It is generally accepted that anhydrous denatured alcohol is a satisfactory solvent for alcohol soluble nitrocellulose and also a latent solvent for regular soluble nitrocellulose. When blended with the usual ester solvents, anhydrous alcohol acquires definite solvent properties which make possible material cost savings.

For example: a blend of ethyl acetate 85% and anhydrous alcohol has a toluol dilution ratio of 3.7 whereas that of ethyl acetate alone is 3.5. An increase in the totuol dilution ratio is characteristic of the blends of most of the usual esther solvents and anhydrous alcohol.

U. S. I. is equipped to supply anhydrous alcohol — both pure and denatured — to meet the specific requirements of the trade.

* * *

Industrial alcohol is to be produced on a commercial scale using potatoes as the raw material in Ireland. The production will be controlled by the Irish Free State government.

37% OF INDUSTRIES INCREASED USE OF S. D. ALCOHOL IN YEAR

Of a total of forty industries—grouped according to the type of products manufactured, fifteen or thirty-seven percent showed appreciable increases in the amount of specially denatured alcohol withdrawn during the past fiscal year. This fact is particularly encouraging when it is considered that the period covered included the extreme low point of business activity and did not include the last six months of 1933, which evidenced a noticeable pick-up in virtually all lines of business.

The total withdrawal of S. D. alcohol for the fiscal year ending June 30, 1933, was 66,823,343 wine gallons compared with 75,465,367 wine in the preceding period.

The annual report, released by the Commissioner of Industrial Alcohol, reveals that the production of artificial silk accounted for the largest increase in volume withdrawals of specially denatured alcohol. This industry consumed 3,190,953 more gallons in 1933 than it did in the preceding year. This represents a gain of 95 percent.

Disinfectants Show 200 P. C. Gain

A 200 percent increase—the greatest percentage gain of any classification—was registered by the disinfectant and deodorant industry. In the production of Pectin a total of 2,490,176 gallons were consumed.

Other industries which scored increases during the past fiscal year, together with the percent gain include the following: Polishes and Cleaners, 54%; Dyes and Dye Intermediates, 33%; Tincture of Iodine, 19%; Electrical Supplies, 13%; Barber Supply Preparations, 12%; Rubbing Alcohol, 7%; Nitrocellulose, Tobacco and Tobacco Solutions, Photographic Supplies, and Hydraulic Brake Fluid each scored a gain of 4%.

Among the major industrial classifications to register declines in alcohol consumption were Vinegar, Pyroxylin Material, Perfume, Ethylene, Ether, Medicines and Drugs, and Toilet Preparations.

COMPARATIVE LIST OF INDUSTRIES USING SPECIALLY DENATURED ALCOHOL

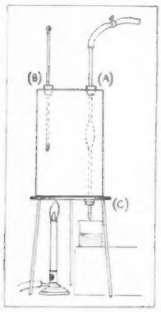
Products	S. D. A. Used 1932-33	S. D. A. Used 1931-32	Comparison
Antiseptic solutions	787,071	888,221	− 101,150
Artificial silk	6,549,607	3,358,654	+ 3,190,953
Barber-supply preparations	66,532	59,259	+ 7,273
Bathing alcohol	1,647,262	1,526,091	+ 121,171
Bay rum	236,495	274,442	− 37,947
Candy glaze	29,055	34,581	− 5,526
Cement	32,353	39,501	− 7,148
Chemicals and food products	9,247,122	12,106,251	− 2,859,129
Dentifrices and tooth paste	37,688	39,860	− 2,172
Deodorants and disinfectants	113,726	37,833	+ 75,893
Drugs and medical supplies	2,905,460	3,431,993	− 526,533
Dyes and dye intermediates	678,103	506,869	+ 171,234
Electrical supplies	30,878	27,323	+ 3,555
Ether	1,071,522	1,265,568	− 194,046
Ethyl acetate	4,099,573	4,339,489	− 239,916
Ethylene	157,500	305,519	− 148,019
Fungicides and insecticides	11,886	18,768	− 6,882
Hair tonics	531,613	686,296	− 154,683
Hats	18,731	19,476	− 725
Hydraulic brake fluid	175,616	167,500	+ 8,116
Lacquers and lacquer thinners	6,661,884	8,327,734	− 1,665,850
Leather and leather solutions	277,964	314,986	− 37,022
Liniments and lotions	613,830	1,031,265	− 417,435
Nitrocellulose	5,959,799	5,701,906	+ 257,893
Pectin	2,490,176		+ 2,490,176
Perfumes	150,222	170,555	− 20,333
Petroleum and lubricating oils	1,266,465	1,334,760	− 68,295
Photographic supplies	1,215,260	1,166,308	+ 48,952
Polishes and cleaning fluids	124,145	87,655	+ 43,490
Pyroxylin and pyroxylin plastics	2,631,823	4,266,119	− 1,634,296
Resin and synthetic resin materials	666,757	604,540	+ 62,217
Shellacs, varnishes, and paints	3,668,271	3,885,229	− 216,958
Soaps, all kinds	141,851	210,407	− 68,556
Solvents	5,314,766	8,564,369	− 3,249,603
Tincture of iodine	69,545	58,015	+ 11,530
Tobacco and tobacco solutions	1,285,122	1,218,988	+ 66,134
Toilet preparations	588,513	782,256	− 193,743
Toilet waters	513,236	586,945	− 73,709
Vinegar	4,326,872	7,766,130	− 3,439,258
Miscellaneous articles and uses	429,029	261,206	+ 167,823
Total	66,823,343	75,465,367	− 8,642,024

Published Monthly by the U. S. Industrial Alcohol Co.

MARCH ★ ALCOHOL NEWS ★ 1934

OIL VISCOSITY DETERMINATION PERMITTED WITH SMALL SAMPLES

A simple laboratory viscometer for determining the viscosity of oils has been recently described which has several advantages over the standard methods. It permits the determination with very small samples of the oil (10 cc. or less), it saves considerable time in the operation, the temperature remains constant, check determinations may be made without loss of the oil, and the apparatus is compact.



The diagram shows the construction of the instrument. In the one employed, an inverted half-gallon can was used for the water jacket. The two openings at (A) and (B) were punched, (A) directly opposite the screw cap opening (C) of the can. Through these two openings is tightly fitted a 5 cc. pipette remaining well inside the can with the tip extending below the bottom stopper about 1 cm. Rubber tubing is attached to the top and the oil is drawn up into the pipette well above the 5 cc. mark. Into the opening (B) a thermometer is fitted in the same manner.

The can, previously filled with water is then heated to the desired temperature. The oil is maintained at the required temperature a few minutes and then leveled to the 5 cc. mark. The control of the oil flow is most easily done by placing a finger on the top of the stem. When the finger is removed, a stop watch is started simultaneously. The moment the last drop of oil has left the pipette, the watch is stopped and the time recorded.

The figures obtained in this way are relative but direct comparisons may be made with the known viscosities of well-known oils as given by standard viscometers.

—Courtesy of Frank M. Biffen and The Chemist-Analyst

CLASSIFYING RELATIVE VALUES

It is often necessary in laboratory work to make comparisions of quantities which cannot be reduced to numerical form. The relative intensity of odors or their degree of resemblance are in this class.

A unique method of recording and summarizing such comparisions has been applied to a wide variety of subjects such as the relative health of botanical specimens, color shades of chemical precipitates, adhesiveness of wall paper to various plasters and has been used to some extent in the U. S. I. laboratories for comparing odors of alcohols.

The individual samples are compared and the "winner" in each case is recorded in a special table. The "winners" are then totaled and a score value is obtained for each sample.

This scoring system is increasingly useful as the number of samples to be compared increases but of course depends for its accuracy upon the correctness of individual judgments. It is a method of recording and formalizing such judgments. It was described with reference to botanical comparisions in the "Plant World," Vol. 18, September 1915.

USES OF ALCOHOL IN INDUSTRY—No. 10

This is the tenth of a series of articles describing briefly the important contributions alcohol has made to the health and well-being of mankind.

FUEL USES OF ALCOHOL

Alcohol is inflammable. When pure, it burns with a colorless, odorless and sootless flame. These ideal burning characteristics have made alcohol a most valuable medium for obtaining heat for many varied and accessory uses where convenience or emergency is to be served. Well known illustrations are laboratory spirit lamps, chafing dish burners, soldering torches, etc.

In recent years, so-called "solid alcohol" or "canned heat" has become very popular. This product is essentially a stiff jelly made by adding alcohol to a soap or nitrocellulose solution. The latter has the advantage of remaining solid until completely burned which is an important safety factor.

The use of alcohol as a commercial fuel is almost entirely governed by economic and political policies. Compared with gasoline, alcohol—gallon for gallon—has about two-thirds the fuel value of gasoline, and with suitable mechanical adjustment, will operate with entire satisfaction in internal combustion engines. In countries which have no petroleum resources, and where gasoline must be imported, governments have required the addition of alcohol to gasoline, thus fostering the home manufacture of fuel alcohol.

From a strictly technical standpoint and disregarding the political controversies which have raged in this country over fuel alcohol as an outlet for farm products, the addition of alcohol to gasoline confers particular advantages in motor operation. Such alcohol blends promote smooth fast running, freedom from carbon deposits, and have distinct "anti-knock" features. Several specialty alcohol fuels are on the market which are used extensively in motorboat engines. Recent speed records have been attained through the employment of this type of fuel.

TECHNICAL DEVELOPMENTS

Spirit of mercurochrome may be prepared by the following suggested formula which has been developed abroad. 2 parts mercurochrome, 54 parts 90% alcohol, 10 parts acetone, and 34 parts distilled water

* * *

That pure Ethyl Alcohol is produced in small quantities by the human body, has been scientifically demonstrated by German physiologists, through the chemical analysis of ground tissue or blood.

* * *

Alcohol is reported as now being added to ammonia to give a mixture for dissolving keratin for the preparations of wave-setting fluids. Formerly, where ammonia was used alone, the preparation was said to impair the lustre and color of the hair.

* * *

Medicines for the treatment of septic ailments in animals, consisting of oil of parsley dissolved in absolute alcohol, have been patented abroad. The concentrated solution is diluted with distilled water according to the ailment to be treated.

* * *

Cetyl alcohol, one of the higher alcohols which is being used in increasingly large quantities in the drug field is now bring produced commercially in the United States. Its chief use is as a base for cosmetic creams and ointments.

* * *

Fermentation of molasses wort by yeast is greatly accelerated by short exposure to ultra-violet rays according to a recent report. The final efficiency of the fermentation is also increased. The irradiated yeast has more activity, which permits the use of less yeast and results in an actual saving of time.

* * *

A method for preparing compounds which are stable at atmospheric temperatures but evolve foam at raised temperatures without the addition of water or other liquid has been patented. Intended for use in medicines and cosmetics, it consists of two gelatinous substances each containing one component of a gas evolving reaction and at least one of which contains a liquid such as water.

* * *

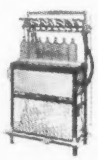
Commercial production of furfuryl alcohol has been announced. This higher alcohol generally exhibits characteristics of the primary alcohols but when treated with strong acids produces secondary reactions which yield resinous products. This property has been applied to the formation of protective coatings. Because of its selective solvent action, it is said to be useful in removing undesirable products from wood resin and mineral oils.

* * *

A new edition of the "Gauging Manual" has been issued by the U. S. Treasury Department, Bureau of Industrial Alcohol. Containing 580 pages, the book embraces instructions and tables for determining quantity of distilled spirits by proof, weight, etc. Copies may be obtained for $1.00 from the Superintendent of Documents, Washington, D. C.

* * *

A novel vacuum can and bottle filling machine, designed to take care of both large and small runs is illustrated at the left. It differs from the usual vacuum filling equipment in that the filling head is lowered onto the container rather than raising the container against the filling stems. The packages may be filled by the straight line method or after they have been packed in cartons.



U.S. INDUSTRIAL ALCOHOL CO.

WORLD'S LARGEST PRODUCERS OF INDUSTRIAL ALCOHOL

ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*

SOLOX-*The General Solvent* • PYRO-*The Standard Anti-Freeze*

PURE (190 PROOF) TAX PAID — TAX FREE

U. S. I.—U. S. P.-*Ethyl* • WEBB'S-*Ethyl* • SUNSHINE-*Ethyl*

Executive Offices: 60 East 42nd Street, New York, N. Y. Branches in all Principal Cities.

NEWS

A. D. M. A. Meeting

The American Drug Manufacturers Association will hold its twenty-third annual meeting at The Greenbrier, White Sulphur Springs, W. Va., April 16 to 19, 1934. The first general session of the association will be at 9 a. m., April 17 and the annual dinner will be held Wednesday evening, April 18. Section meetings are all scheduled for April 16, the four sections being Scientific at 9 a. m.; Biological at 9 a. m.; Pharmaceutical at 3 p. m.; and Crude Drug.

Meeting of the Scientific Section, W. J. Rice, Chairman, will be called to order at 9.00 a. m., Monday April 16th. It is intended to have both a morning and afternoon session on this day, so that the entire Scientific Section program can be covered on Monday.

Reports are scheduled from the following sub-committees: (1) Alkaloid and Drug Standards; (2) Analytical Assay Methods; (3) Chemical Tests and Standards; (4) Crude and Milled Drugs; (5) Digestive Ferments and Glandular Products; (6) Drug Extracts; (7) Pharmaceutical Investigations; (8) a. Pharmacologic Assays (Referring particularly to assays other than on crude drugs and their preparations). b. Pharmacologic Assays (Referring particularly to crude drugs and their preparations); (9) Synthetic Organic Chemicals; (10) Vitamin Assays.

The Subcommittee on Alkaloid and Drug Standards, F. O. Taylor, Chairman, is studying some methods of tests now used in the U. S. P. which are open to criticism in one way or another. The Subcommittee's report will include the results of these tests, together with suggestions as to possible suitable changes or additions. These pharmacopoeial studies are highly important and of general interest.

The Subcommittee on Synthetic Organic Chemicals, headed by E. H. Volwiler, will report on the following important subjects: (1) Studies of the Optical Rotations of Ephedrine Salts; (2) Analytical Methods and Standards for Sodium Phenolbarbital; (3) Establishment of Standards for Tetrachlorethylene; (4) Analysis of Methylene Blue.

Dr. George W. McCoy, Director of the National Institute of Health, expects to attend the Meeting of the Biological Section. The first session is scheduled to convene at nine a. m., Monday, April 16th, with the Chairman, Dr. L. T. Clark, presiding.

Officers of the association are: President, A. Homer Smith, president of Sharp & Dohme; 1st Vice-president, O. W. Smith, president of Parke, Davis & Company; 2nd Vice-president, Dr. A. C. Boylston, general manager of Mallinckrodt Chemical Works; 3rd Vice-president, Dr. John F. Anderson, vice-president of E. R. Squibb & Sons; Treasurer, S. DeWitt Clough, president of Abbott Laboratories.

A. A. Wasserscheid, Mallinckrodt Chemical Works, is chairman of the entertainment committee, and V. E. Williams, Monsanto Chemical Co., is chairman of the golf committee.

The Commissioner of Narcotics, H. J. Anslinger, will address the convention at the second General Session, Wednesday morning, April 18th, on "Newly discovered Narcotic Drugs and Their Uses."

The entire morning session from nine A. M. to one P. M., Thursday, April 19th, will be given over to the program of the Committee on Sales and Advertising Problems, Thurston Merrell, Chairman.

This year a unique feature has been added—an advertising contest. Rules governing the contest are given below. It is open to all member firms and a cup will be presented at the banquet as a trophy to the winner.

Decision on the winning advertisement is to be made by secret ballot, with one vote only to each member house having a representative present at the meeting. It is intended that competition for the trophy and comparison of the various campaigns of member firms will help to improve the quality and effectiveness of the advertising of the various members. The visual display will give a graphic idea of the many effective campaigns being used in the pharmaceutical field during the year.

Other features of the program will be: Sales Compensation Methods, A. D. Brush, Abbott Laboratories; Should Medical Advertising be Coordinated with Planned Detail and Sales Work?, L. S. Temperton, Sharp & Dohme; The Value of Standardized and Indexed Therapeutic Indication Cards for the Physician, Thurston Merrell, The Wm. S. Merrell Co.; Psychology for Salesmen, Dr. John B. Watson, Vice-Pres. J. Walter Thompson Co., Adv. New York, N. Y.

Rules governing advertising contest 1934 Annual Convention Sales and Advertising Committee Program:—(a) The campaign should be properly mounted for display purposes on one or more cardboard or plywood panels. The size of these panels is left to the exhibitor; (b) The campaign should be a direct mail campaign, a medical journal campaign, or a combination of both; (c) The selection of the winner should be based on (1) advertising value, (2) selling power, (3) prestige-building properties; (d) The exhibitor may, if necessary, attach explanatory notes, charts or graphs to the campaign exhibit; (e) No advertising agency, sales agency or outside organization will be allowed to make the exhibit. Contestants are strictly limited to member firms of the organization; (f) The exhibitor may display the names of its employees or list their commissions, such as writers, artists, engravers, printers, who helped build the campaign; (g) Before the actual voting to select the prize-winner, an executive of each firm exhibiting should be allowed to give a five or ten minute explanation of the campaign to point out how the advertising campaign is linked up to detail and sales development.

A. HOMER SMITH

CARSON P. FRAILEY

A. A. WASSERSCHEID

Package Machinery Meeting

The Packaging Machinery Manufacturers Institute held its semi-annual meeting at the Hotel Astor, New York, March 12.

Another Drug Dinner Record

Over twelve hundred members of the drug and allied trades attended the ninth annual dinner of the Drug and Chemical section of the N. Y. Board of Trade, at the Waldorf-Astoria, New York, March 8, thus making it by far the biggest dinner yet held by this organization.

S. W. Fraser of Burroughs, Wellcome & Co., chairman of the section, presided; Lee Bristol, of the Bristol-Myers Co., was toastmaster, and James A. Farley, postmaster-general of the United States, was the principal speaker.

The latter reviewed the history of the first year of the Roosevelt administration, quoting the progress which has been made

JAMES A. FARLEY

towards recovery and answering the critics of the administration's program. Both Mr. Bristol as toastmaster, and Mr. Fraser, as chairman of the section, paid sincere testimonies to the President and to his administration.

Joseph Huisking of Charles L. Huisking & Co., was chairman of the reception committee; and B. J. Gogarty, of the Rossville Commercial Alcohol Co., vice-chairman, while Ray C. Schlotterer, secretary of the section coordinated all of the activities which went into making this such a highly successful occasion.

In addition to those already mentioned the following honored guests were seated on the dais: Percy C. Magnus, Charles L. Huisking, Chas. A. Prickitt, George Simon, Herman G. Weicker, S. B. Penick, F. J. McDonough, John Powell, A. A. Teeter, Dr. A. G. Du Mez, August Merz, Carson P. Frailey, A. A. Wasserscheid, Frank A. Blair, Dr. Robert L. Swain, Gustave Bayer, J. F. Hayes, David L. Kaltman, Dr. C. B. Jordan, James C. Chilcott, Dr. Ernest Little, J. J. Reiner, J. B. Van Dyke, Wm. P. Jacobs, Chas. S. Welch, Dr. Edward Bocker, Albert J. Squier, R. E. Lee Williamson, Dr. E. F. Kelly, Col. Thos. F. Meehan, Harrison Hires, E. L. Drach, C. C. Concannon, B. H. Smith, Dwight E. Austin, W. Bruce Philip, Chas. A. Mace, Dr. E. L. Newcomb, H. Lawrence Groves, Peter Dougan, J. M. Ewing, and L. E. Swenson.

For Tooth Paste

NEUTRAL POWDERED SOAPS

The exacting buyer and chemist, who knows just how much trouble can be traced to the use of a soap which is chemically or physically at variance with some characteristic of a particular dentifrice formula, considers in a soap:

Color, taste, moisture content, mesh, titre, free sodium carbonate, alcohol residue, water residue and iodine value. Most important of course—no free alkali.

POWCO BRAND Neutral Powdered Soaps offer you this selective buying basis. Our laboratory is at your service to help in arriving at the specific soap best adapted to your dentifrice formulae.

MAY WE SEND SAMPLES?

POWCO

LABORATORY CONTROLLED

BRAND

REG. U.S. PAT. OFF.

For Shaving Creams

CONCENTRATED SHAVING CREAM BASE

Here is a product which removes all uncertainty from shaving cream manufacture. Let us send you a sample, with working directions, which will prove the economy of operation and the high quality product secured by using this base.

For Wave Set Lotions

TESTED PERSIAN QUINCE SEED

POWCO BRAND Tested Persian Quince Seed is most **economical** since we guarantee mucilaginous content, that is, color, quality, quantity and freedom from mold.

Our simple but efficient medium for testing quince seed affords you a basis upon which to buy quince seed intelligently.

JOHN POWELL & CO., Inc.

114 East 32nd Street, New York, N. Y.

A. M. T. A. Convention in June

Charles E. Kelly, chairman of the entertainment committee of the Associated Manufacturers of Toilet Articles, has announced that the annual convention of the association will be held in the Hotel Waldorf-Astoria, New York, June 5, 6 and 7. Further details regarding the program will be announced in our next issue.

The entertainment committee of this convention will be Charles E. Kelly, Chairman; E. W. King, Vice Chairman; W. C. Young, Treasurer; W. P. Murray, Ass't Treasurer; A. C. Burgund, Charles Fischbeck, B. J. Gogarty, Edmund Hoffman, P. W. Hyatt, W. E. Klass, Karl Voss.

CHARLES E. KELLY

With a committee with the personnel of this type, the association is certain of a highly successful party. Practically each member is a veteran member of this committee of many years standing and this committee has a long record of remarkably successful entertainment to its credit.

Charles E. Kelly, the chairman, is typical of its membership in that he has spent a tremendous amount of time in arranging these programs in the past and knows completely the routine and detail attached to it. Furthermore, he has the complete confidence of every member of the committee thus assuring a smoothly-working organization. The association in to be congratulated upon the fact that it has in charge of its entertainment program, what is probably the most experienced group of any association in the country.

Geer Heads D. S. C.

The Druggists Supply Corp. held its twenty-first annual meeting at the Hotel Pennsylvania, New York, February 19 and 20. The events of the two-day session were under the direction of Dr. William J. Schieffelin, founder of the organization.

Among the speakers were J. Mahlon Buck, of Smith, Kline & French, Inc.; Dr. E. L. Newcomb, secretary of the National Wholesale Druggists Association; W. J. Schieffelin, Jr., of Schieffelin & Co.; Wheeler Sammons, of the Drug Institute; and Duncan Longmeyer, National Drug & Chemical Co. of Canada.

The following officers were elected to serve for 1934: president, A. J. Geer, of the Geer Drug Co., Charleston, S. C.; first vice-president, J. Mahlon Buck, of Smith, Kline & French, Inc., Philadelphia; second vice-president, Warner James, of Towns & James, Brooklyn, N. Y.; secretary-treasurer, Kenneth A. Bonham, New York; and merchandise manager, George H. Huff, of the Kauffman-Lattimer Co., Columbus, Ohio.

F. W. D. A. Meets

Plans for the entertainment features of next Fall's annual convention of the Federal Wholesale Druggists' Association were formulated at the mid-winter meeting held at the Hotel Roosevelt February 20 and 21. The meeting will be held at the Providence-Biltmore Hotel, Providence, R. I., September 16 through September 19. Under the chairmanship of Percy C. Magnus, the entertainment committee has drawn up tentative plans for an elaborate program to accompany the business sessions.

The first session of the mid-winter meeting in New York was given over to a meeting with the manufacturers who are associate members of the organization. The meeting was opened by H. J. Krupp, of the Philadelphia Wholesale Drug Co., president of the association, and among the speakers were Earl A. Means, of the Bristol-Myers Co.; R. E. Lee Williamson, of the Mutual Drug Co. and secretary of the association; O. J. Cloughly, of the St. Louis Drug Co.; T. E. Hicks of the Modess Corp.; S. Kovacs, of the Royal Manufacturing Co.; and Thurston Merrell, of the Wm. S. Merrell Co.

S. Barksdale Penick, as chairman of the committee on associate members, reported the enrollment of the following:—Mennen Co., J. B. Williams Co., Davol Rubber Co., and Whitall Tatum Co.

Drug & Chemical Club Elects

The board of governors of the Drug and Chemical Club, New York, held its annual election for officers on February 27. The following were elected:—President, C. C. Gardiner, of the Hartford Steam-boiler Inspection and Insurance Company; vice-president, A. A. Wasserscheid, New York manager for the Mallinckrodt Chemical Works, St. Louis; treasurer, A. A. Teeter, of Charles Pfizer & Co., and secretary, Francis J. McDonough, of the N. Y. Quinine & Chemical Works.

S. B. Penick, of S. B. Penick & Co., the retiring president, was presented with a desk clock as a token of esteem.

Flavoring Extract Convention

Flavoring Extract Manufacturers' Association will hold its annual convention May 21, 22 and 23, at the Waldorf-Astoria hotel, New York. Fred Rogers heads the program committee, with B. J. Gogarty, of the Rossville Commercial Alcohol Corp., as chairman of the committee of arrangements.

The program for the business sessions is not yet available but B. J. Gogarty, chairman of the entertainment committee has already laid the groundwork for that side of the three-day meeting. On the evening of the twenty-first, he plans to feature a tour of the wonders of Radio City, followed by a party at one of the newer types of cabarets which have come into vogue since the advent of Repeal.

B. J. GOGARTY

An out-of-doors program, featuring golf and fishing is planned for the following day, the twenty-second. A fishing trip has been included as a new feature this year for the benefit of those who do not play golf.

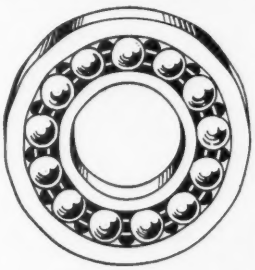
The annual banquet will be held on the following day, the night of the twenty-third.

Mr. Gogarty promises further details concerning the entertainment program as the plans for it progress, but those who know him need no further assurance of a successful program than the fact that he is making the arrangements. He was a member of the A. M. T. A. entertainment committee for the past several years, than which there is no better training. He has been president of the Salesmen's Association, and chairman of the reception committee of the annual banquet of the drug section of the N. Y. Board of Trade. He is a great organizer, with innumerable friends and a fine faculty for securing cooperation.

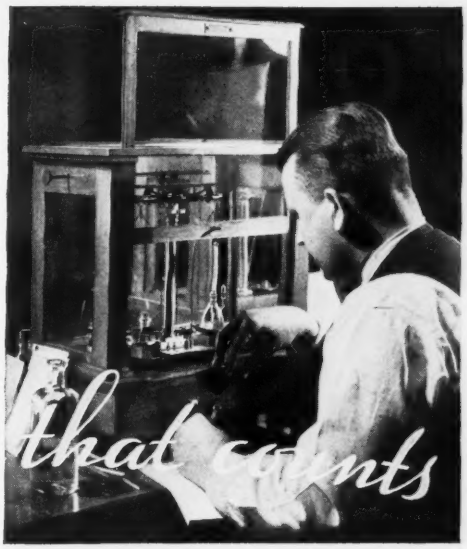
N. Y. Drug Salesmen's Dance

The Drug Salesmen's Association of New York will hold its tenth anniversary banquet, vaudeville and dance at the Cafe Loyale, Fifth Avenue and 43d Street, New York, on April 14. H. A. Goldstein is the chairman of the Association's entertainment committee.

In ALCOHOL

as in  ball bearings

...it's uniformity that counts



In determining the specific gravity to arrive at the "proof" of alcohol the alcoholmeter is commonly used. The illustration shows a Rossville chemist using the more accurate pycnometer on a balance scale which is accurate to $\frac{1}{4,530,000}$ *of a pound.*

Like alcohol, ball bearings are seldom seen, but they carry a great responsibility. Standard bearings must not vary more than one-ten-thousandth of an inch, otherwise the larger balls would bear all the weight, and would soon crystallize and crush under the strain.

Ball bearings are made in different sizes and grades for different purposes. But all ball bearings for a particular purpose must be uniform in size and temper or they will not long operate with their intended smoothness.

Uniformity of a standard comparable to that required in ball bearings is characteristic of Rossville alcohols.

Exacting scientific control is exercised over each step in the production of Rossville alcohols, and every precaution is taken to the end that each shipment of each type of alcohol is an absolute duplicate of preceding consignments and of those which will follow.

There is a Rossville alcohol for every industrial, medicinal and scientific use---one which will exactly meet your requirements. The Rossville name is your guarantee of uniform quality. *Rely on Rossville.*

ROSSVILLE
THE SPIRIT OF THE NATION
ALCOHOL

BRANCH OFFICES:

ATLANTA	KANSAS CITY
BALTIMORE	LOUISVILLE
BOSTON	NEWARK
BUFFALO	NEW YORK
CHICAGO	PHILADELPHIA
CINCINNATI	PITTSBURGH
CLEVELAND	SAINT LOUIS
DETROIT	SAINT PAUL
GRAND RAPIDS	

ROSSVILLE COMMERCIAL ALCOHOL CORPORATION

DISTILLERS OF FINE ALCOHOL

TERRE HAUTE INDIANA

A SUBSIDIARY OF COMMERCIAL SOLVENTS CORPORATION

Chemical Salesmen Install Officers

The annual Chemical Salesmen's Association luncheon at which the new officers are formally installed was held at the Chemists' Club, New York, February 27. L. E. Swenson, of the American Cyanamid Corp., the new president of the salesmen's association, was introduced by Fred Koch, of the Dow Chemical Co., who acted as toastmaster. B. J. Gogarty, of the Rossville Commercial Alcohol Corp., the retiring president, was presented with a silver pitcher.

The vice presidents are:—John Alvarez, Grasselli Chemical Co.; Charles Litchenburg, Commercial Solvents Corp., and E. S. Burke, of Edward S. Burke Co.; Frank Byrne, Monsanto Chemical Co., continues as secretary-treasurer.

Mich. Cosmetic Assn.

Michigan Cosmetic & Extract Association held its regular meeting in the Colonial Room of the Masonic Temple on March 8th, in Detroit. Among other items of importance discussed at the meeting was the McCarran-Jenckes Bill (S2858 and H. R. 7964) which the association supported. Ed. Orrell, Beauty Counselors, Inc., was elected chairman of the Entertainment Committee, pinchhitting for "Doc" Cole who was absent because of a shattered elbow and a broken shoulder sustained about two weeks ago when he slipped on the ice.

The Jane Edwards Co., Mr. Karl E. Ketchum, president, was elected to the Association by unanimous approval. Arrangements were made to hold the next regular meeting at the Downtown Club, in celebration of the organization's first anniversary.

The Michigan Association invites all outside traveling representatives to its meetings held on the second Thursday of each month. These outside guests are heartily welcome.

N. W. D. A. Convention Committee

S. J. McGiveran, of the Owens-Illinois Glass Co., Toledo, who has accepted the chairmanship of the committee on arrangements and entertainment for the 1934 convention of the National Wholesale Druggists' Association, which will be held at the Greenbrier, White Sulphur Springs, W. Va., October 1 to 4 inclusive, has appointed the following as an executive committee to assist him in his work:—

J. Mahlon Buck, Smith, Kline & French, Inc.; D. C. Clement, Coty, Inc.; Aglar Cook, Topics Publishing Co.; Charles V. Doerr, McKesson Minneapolis Drug Co.; George, Genz, Parke, Davis & Co.; T. E. Hicks Modess Corp.; P. C. Magnus, Magnus, Mabee & Reynard; Herbert R. Mayes, The American Druggist; S. B. Penick, S. B. Penick & Co.; S. L. Rairdon, Owens-Illinois Glass Co.; Harry J. Schnell, The Druggists Circular; T. S. Strong, Cobb & Co.; Ross Treseder, Coca-Cola Co.; and Wm. H. Veeneman, Frankfort Distilleries.

Vanilla Bean Assn.

Incorporation of the Vanilla Bean Association of America was approved at a recent meeting of the association, held in the Drug and Chemical Club, New York. The incorporators were as follows: F. Weber, of Geo. Lueders & Co.; F. Dodge, of the Dodge & Olcott Company; Henry Solomon, of F. Huber & Co.; C. A. Smeltzer, of P. Derode Freres & Dammann; and M. Cortizas, of J. N. Limbert & Co.

Eisner Asks Price Maintenance

Mark Eisner, counsel for the Perfumery and Cosmetic Institute in a letter to Mark Merrell, Assistant Deputy Administrator of the NRA has urged that the Cosmetic Code include a provision for securing retail price maintenance. He also objected to the provisions to the effect that demonstrators must at all times be available for the sale of the member's merchandise.

Assoc. Independent Druggists

Associated Independent Druggists of America has been organized as a new voluntary chain of retail drug stores to be country-wide in its operations. Central headquarters is located in room 806, 114 West 47 st., New York, and is in charge of J. Tracy Hill.

N. E. Drug Show

The New England Drug Show will be held at Mechanics Building in Boston during the week of April 2 to 7.

Beeswax Code

Beeswax bleachers and refiners code, effective March 5, establishes a 40 hour work week, with watchmen limited to an average of 42 hours, and fixes minimum wages of 40 cents an hour for common labor, except that employees engaged in light work in the wicking, finishing and packaging departments, are to receive a minimum of 30 cents. The industry is expected to put on 107 additional wage earners, under the code.

Flavoring Extract Code

A public hearing will commence at 10 a. m. Wednesday, March 21, in the south lounge of the Ambassador Hotel under Deputy Administrator Walter White, on a code of fair competition submitted by the Flavoring Extract Manufacturers, National Manufacturers of Fruit and Flavoring Syrups, and National Manufacturers of Soda Water Flavors, claiming to represent 75 per cent of the industry. The code proposes a 40-hour work week with tolerances of peak production periods. Minimum wages are 40 cents per hour in the North, 32.5 in the South, $18 per week for watchmen (who may work 56 hours) and from $14 to $16 per week for office employees, varying with the size of cities.

Wholesale Code Hearing

Public hearing on the revised code for the wholesale drug business was held in Washington on March 15. Misbranding, false advertising, commercial bribery, and secret rebates were among the things classified as unfair trade practices.

The proposed code also provides for the determination of price differentials by joint action of the wholesalers' code authority with similar representatives of manufacturers, importers and other primary sellers. The section relating to this reads as follows:

Section 10. Trade Relations. (a) In these lines in which manufacturers, importers, mills, or other primary sellers sell coincidentally to several classes of buyers, the Wholesale Drug Code Authority, subject to the approval and with the advice of the Administrator, may arrange for a conference of all interested parties, including primary sellers or the code authority governing them, for the purpose of defining and establishing price differentials which shall be fair and reasonable in relation to the nature and extent of the distributing services and functions rendered by each buying class. Such differentials shall include all elements affecting the net price, such as discounts, terms, and allowances.

The Wholesale Drug Code Authority, with the advice and consent of the Administrator and after all interested parties shall have been given an opportunity to be heard in the matter, shall formally announce the price differentials which are deemed fair on specific products. When the Wholesale Drug Code Authority announces that a fair wholesale-price differential has been established on any product (by sources competent to adequately serve wholesale druggists) then and thereafter, or until the Wholesale Drug Code Authority announces that such fair price differentials have been discontinued, it shall be an unfair trade practice for a wholesale druggist to handle such product unless the price at which it is sold to him allows or provides for such fair price differential.

Nothing in this section shall be construed to interfere with the right of manufacturers to sell direct to retailers or the right of retailers to buy direct from manufacturers.

IN THE LAST ANALYSIS, THE SALES OF YOUR PRODUCT HINGE ON THE QUALITY OF ITS

BASIC INGREDIENTS

Almond Meal
Balsam Tolu
Benzoin Gum
Chalk (precipitated)
Chinese Shavings
Cuttle Fish Bone
FACTOLAC
Gum Arabic
Gum Tragacanth
HENNA
Henasoap Shampoo
Indian Gum (Karaya)
Talcum
Irish Moss
Lavender Flowers
Olibanum
Orris Root
Powdered White Soap

HOPKINS' NEUTRAL WHITE SOAP

Powdered, granulated. Contains NO soap bark, free alkali, free acid or heavy metals. Totally free of rosin, sugar and foreign matter.

QUINCE SEED

Choice qualities rich in mucilaginous content.

In your preparation, the chain of its ingredients is only as strong as its weakest link. Neither clever merchandising nor effective advertising can replace the product's job of "delivering the goods." For more than 40 years, America's outstanding toiletry successes have relied on Hopkins' Basic Ingredients for the tested, full-strength, true-to-name quality which has helped elevate them to their present position of leadership.

FREE ON REQUEST

SAMPLES, PRICES and PRICE LISTS OF HOPKINS' CRUDE BOTANICAL DRUGS and LABORATORY BASIC SPECIALTIES

"Quality is remembered long after price is forgotten"

J.L.HOPKINS & COMPANY 220 Broadway NEW YORK

FRENCH TYPE PERFUMES

All our specialties are made under foreign methods with corresponding results.

FOR YOUR LARGE DISTRIBUTOR

we offer

CHYPRE		GARDENIA		SWEET PEA	
Concentrated Oil	$6.00 lb.	Concentrated Oil	$7.50 lb.	Concentrated Oil	$6.00 lb.
Finished Perfume	4.50 gal.	Finished Perfume	5.50 gal.	Finished Perfume	4.50 gal.

MANY OTHER TYPES AVAILABLE AT CORRESPONDING LOW COST TO YOU.

BUDD
Aromatic Chemical Co. Inc.

667 WASHINGTON STREET NEW YORK, N. Y.

Consider Our Laboratory Part of Your Organization

Nothing in this section shall be construed to prevent fair price differentials from being allowed on the basis of quantity purchased or such other factors as the Administrator may deem proper.

Copeland Bill Reported

The Copeland Federal Food and Drugs Act has been reported out of the Senate Committee on Commerce following the hearing held before that committee the last of February and the beginning of March. Several changes requested by the trade have been made, but the bill is still fundamentally objectionable in many respects.

Among the changes made in answer to objections by the trade are:

1. The word "formula used in describing official preparations under Section 4 (b) on adulterated drugs, has been changed to "manufacturing formula."
2. The palliation clause has been changed to require that the label state that the product is a palliative for diseases named on the label, and state "the nature of its palliative action."
3. The entire paragraph which named diseases for which no advertising to the public was allowed had been deleted from the bill.
4. From Section 22 (h) there has been entirely removed the sentence "In formulating regulations . . . the finding of the Secretary shall be conclusive if in accordance with law."
5. Section 17 (d) has been broadened to exempt all agencies or media for the dissemination of advertising.
6. The effective date is given as one year after date of enactment rather than six months.

People

Gerard Lambert to Defend Cup

Gerard B. Lambert, of Listerine fame, and present head of the Gillette Safety Razor Co., will bear the lion's share of the costs in defending the America's Cup in the yacht races with the English "Endeavor" in August.

Not only will he bear the largest individual cost of building and racing the "Rainbow," American cup defender, but he will also commission the "Vanitie," at his own expense.

Waegelin, Asst. Sec. of Lueders

George J. Waegelin, since March 1917 associated with George Lueders & Co., Inc., New York, has been elected assistant secretary of the company.

Anderson-Bromo-Seltzer director

Henry H. Anderson, New York attorney, has been added to the board of directors of Emerson's Bromo-Seltzer, Inc.

A. Lloyd Taylor Joins Pease

Dr. A. Lloyd Taylor, formerly of the research staff of E. R. Squibb & Sons, and more recently with the Sirdler corp. of Louisville, is now director of the Department of Chemistry of Pease Laboratories, Inc. of New York. Dr. Taylor has held

A. LLOYD TAYLOR

several academic positions of responsibility and has been active in original research, particularly in the field of organo-metallics, calcium compounds and sugar acids. During the past two years he has also been cooperating with the United States Bureau of Standards on the development of new uses of xylose.

Eichberg Heads Amer. Lecithin

Joseph Eichberg has been elected president of the American Lecithin Corp., Atlanta, Ga. E. P. Pope has been elected secretary.

J. V. Smith Represents House of Eden

J. Van Velsor Smith, New York, has taken over the representation of the House of Eden line in the metropolitan territory.

Dawson—Vick Chemical V. P.

Lieut. Col. George R. Dawson, for many years confidential secretary to H. S. Richardson, chairman of the board of the Vick Chemical Co., has been appointed vice-president of the company, and a special confidential assistant to H. S. Richardson and Lunsford Richardson, who comprise the general manager's department.

Arlo Wilson, has been appointed comptroller and C. B. Ewell, assistant comptroller, of the company.

Dutcher-Director, J. L. Hopkins

P. W. Dutcher, plant superintendent for J. L. Hopkins & Co., New York, has been elected a director of the company.

Mason Joins U. S. I.

J. Tenny Mason has been appointed assistant to the president of the U. S. Industrial Alcohol Co., according to an announcement by Charles S. Munson, president. All of the company's activities in the molasses business will be under the supervision of Mr. Mason who is now in Cuba inspecting the properties and plants of the company.

Mr. Mason, a Swarthmore graduate, joins U. S. I. after serving over eighteen years with E. I. DuPont de Nemours & Company, Inc. He will have his headquarters in the executive offices of U.S.I. in the Lincoln Building, New York.

J. P. Barrett Joins Penick

J. P. Barrett, M. Sc., comes from the Ohio State University, Columbus, to join the staff of S. B. Penick & Co., New York, in the capacity of entomologist in their household and agricultural insecticide department. Mr. Barrett has had many years' experience in his particular field and will be stationed for the present at the New York headquarters of the company.

Dr. Swain Honored

Dr. Robert L. Swain, president of the American Pharmaceutical Association and head of the drug law enforcement authority in Maryland, received an honorary degree of Master of Pharmacy on the occasion of the 113th anniversary of the Philadelphia College of Pharmacy and Science on February 23. Dr. Swain delivered an address on "The Need of a Definite Pharmaceutical Program." The celebration was held in Philadelphia in connection with the annual midwinter alumni reunion.

G. E. Berray Joins T. Charles

George E. Berray, formerly president of Di-Lash, Inc., New York, has resigned from that organization and is now connected with T. Charles, Inc., that city. He will have charge of sales promotion of "Shamp-U-Tint," a new hair dye in shampoo form.

Eric Coupey Buys Jimmie Walker's Home

Eric Coupey, well-known essential oil broker, has purchased former Mayor James J. Walker's home at 6 St. Luke's place, New York, for approximately $30,000.

Goodwin-Yardley Asst. Sales Mgr.

Irving S. Goodwin, salesman for Yardley & Company, Ltd., in New York for the last eleven years, has been promoted to assistant sales manager.

Avoid Alkalies by Using—

TEGIN for vanishing creams and greaseless ointments.

PROTEGIN X for tissue and cold creams. Samples and suggested formulae are available for the asking.

PRESERVATIVES and ANTISEPTICS

NIPAGIN M and NIPASOL M. Phenol coefficients: 3 and 17. Neutral, odorless and non-irritating.

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative. Samples and complete particulars will be sent upon request.

Th. Goldschmidt Corp.

70 Pine Street New York

THE SUN NEVER SETS ON EMPIRE PRODUCTS

EMPIRE
Distilling Corporation

Offers to the Trade

HIGH NUMBER FORMULAE OF SPECIALLY DENATURED ALCOHOL, made up with finest quality Cologne Spirits; TAXPAID NON-BEVERAGE ALCOHOL; Also all grades of heavy tonnage completely and specially denatured alcohol, as well as Empire Solvent. Prompt Delivery. Inquiries Solicited.

LESTER S. BACHARACH, *President.*

Executive Offices: 347 Madison Avenue, New York
Distillery: 82nd Street and Bartram Avenue, Philadelphia

Dr. Sherman—Nichols Medalist

Dr. Henry C. Sherman, head of the chemistry department of Columbia University, was presented with the William H. Nichols medal of the New York section of the American Chemical Society at the Chemists' Club, New York, March 8, in recognition of his achievements in vitamin research.

Companies

Thurston & Braidich Admits Partners

Thurston & Braidich, New York, importer of gums and vanilla beans, has announced that Edward S. Buckley, Charles R. Rosevear, Jr., and Charles F. Walden have been admitted into the partnership.

J. EDWARD YOUNG

The firm is one of the oldest in the business, having been established in 1856.

J. Edward Young, Jr., one of the continuing partners, has been with the firm since May 8, 1882, and a partner since 1890. Charles R. Rosevear, the other continuing partner, has almost as many years

EDWARD S. BUCKLEY

to his credit. Both are well-known in this industry.

Edward S. Buckley has been associated with Thurston & Braidich for over thirty years, and for the last sixteen years has been in charge of the vanilla bean department. He is recognized as one of the few authorities on vanilla beans.

Charles R. Rosevear, Jr., started with the intention of having a career in aviation, but after obtaining a pilot's license, decided to give up this vocation, to follow in his father's footsteps.

Charles F. Walden has been in charge of the new line of varnish and lacquer

CHARLES F. WALDEN

gums, which this firm added to its other line about two years ago. He has been associated with the importation of gums for about fifteen years and has made considerable study of their uses.

Purepac Makes Seidlitz

The Purepac Corp., New York, announces the manufacture and sale of Seidlitz powders.

Hudnut Buys Fifth Ave. Bldg.

Richard Hudnut, New York, represented by Warner-Hudnut Corp., has taken title to the six-story Hudnut building at 693 Fifth avenue, which houses the Hudnut New York salon. The recorded consideration was $450,000. The company has been occupying two floors in this building since its completion.

Lacto-Dextrin Mark Invalid

American Pharmaceutical Co., New York, was awarded the decision in a suit brought by Battle Creek Food Co. to enjoin infringement of its registered trade-mark, "Lacto-Dextrin." The former company made application to have the latter's trade-mark determined void, because descriptive.

On February 8 United States District Judge Forman approved the application so made and handed down a decision in which he held that everybody has the right to use the words "lactose" and "dextrin" in describing a product of which they were the principal ingredients; that the Battle Creek Food Company could not, by merely eliminating the last two letters of the word "lactose," obtain a monopoly of the use of the words "lactose" and "dextrin;" and that the defendant and all the world had the right to use lactose and dextrin, common dictionary words.

Monsanto Petroleum Chemicals

Monsanto Petroleum Chemicals, Inc., a controlled affiliate of Monsanto Chemical Co., has been organized. The new company will have headquarters in Dayton, Ohio, and will take over the plants and process of The Dayton Synthetic Chemicals Co.

The latter company produces a resin made from petroleum gases, in which field of chemistry Monsanto has done considerable research. Patents and processes of both Monsanto and Dayton Synthetic are pooled in Monsanto Petroleum Chemicals, Inc., which will undertake their development and continue research in the field of petroleum chemistry.

Edgar M. Queeny, president of Monsanto Chemical Co., is president of Monsanto Petroleum Chemicals, Inc. Charles A. Thomas of Dayton is vice-president and general manager and will be in charge of the administration of the company.

In addition to Messrs. Queeny and Thomas, the directors of the new company are: Gaston Du Bois and L. A. Watt of St. Louis; Charles Belknap and Charles Curtis of Boston; Nelson Talbott and Charles Mead of Dayton; and Harold Talbott of New York.

Campana Contest Award

Campana Corp., Batavia, Ill., has announced that the winner of its prize contest conducted to secure a name for its new product, was won by Henry Kutney, of Detroit, Mich. The winning name was "Dreskin," which has been adopted by the company.

Campana is now conducting a contest to secure a good selling slogan for "Dreskin." Five prizes of one hundred dollars each will be awarded each week for the best five slogans submitted in connection with radio advertising.

Albert Albeck Opens in Hollywood

Albert Albeck, Inc., has opened offices in Hollywood, Calif., to sell cosmetic materials. The company represents American Lanolin Co., Theodor Leonhard Wax Co., Felton Chemical Co., and Jacques Wolf & Co. Albert Albeck is manager and the laboratory is in charge of William M. Pauer.

Bennington Wax Paper Co. in Chicago

The Bennington Wax Paper Co. and Ben Mont Fancy Papers, Inc., with mills at Bennington, Vermont, manufacturers of the line of "Ben Mont" papers, join in announcing the opening of a Chicago office at Room 1540 Merchandise Mart. The office will be in charge of Theodore Lax, Middle Western manager for both companies.

Announcing

the pending consolidation of the Lewis-Waetjen Agency, Inc., 18 East 41st Street, New York City, with the agency of Murray Breese, 11 West 42nd Street, New York City, under the new firm name

BREESE-WAETJEN INCORPORATED

18 EAST 41st STREET **NEW YORK CITY**

Pending completion of the consolidation of these two well-known merchandising and advertising concerns, Murray Breese becomes President of the Lewis-Waetjen Agency.

SERVICE • PLANS • COPY • SALES AND MARKETING • CONSULTATION

COSMETIC COLORS

Originator and largest manufacturer of harmless colors for cosmetics

ANSBACHER-SIEGLE CORPORATION

ANSBACHER

ROSEBANK, STATEN ISLAND, NEW YORK

Announcing!

CETYL ALCOHOL

(Pure)

The latest Givaudan cosmetic raw material, developed especially for use in creams.

Our product has the following qualities:

1. Contains no acid.
2. Is entirely unsaponifiable.
3. Is tasteless and practically odorless.
4. Melts at 49°C.

As little as from 1% to 2% CETYL ALCOHOL added to a formula will make the texture smoother.

Send for a sample and further information.

GIVAUDAN-DELAWANNA, INC.

80 FIFTH AVENUE

NEW YORK, N. Y.

Abbott Buys in Atlanta

Purchase of a three-story building at 135-37 Walton Street, N. W., Atlanta, Georgia, is announced by Abbott Laboratories, North Chicago, Illinois, to be used as a branch office to serve southeastern states.

This building, a three-story and basement brick structure, occupies a lot 40 by 70 feet and contains a floor space of

about 12,000 square feet. A complete stock of Abbott products will be carried at all times, including Ampoules, Biologicals, D. R. L. Arsenicals, Haliver Oil, Vitamin and Nutritional products, Specialties, U. S. P. and N. F. preparations and Pharmaceutical Chemicals.

After February 5th, all shipments to Abbott customers in Georgia, Alabama, Florida, North Carolina, South Carolina and Eastern Tennessee will be made from the Atlanta Branch.

C. B. Dyar, a native of Calhoun Ga., who has represented Abbott Laboratories in this section of the country for the past 22 years, has been appointed branch manager.

Marion Lambert Appoints Mills

Marion Lambert, president of Marion Lambert, Inc., St. Louis, manufacturers of "Dew" deodorant and other cosmetics, announces the appointment of William I. Mills as general sales manager. In addition Ray J. Delles has been promoted to the position of assistant sales manager.

Royal Mfg. Co. in Atlanta

Royal Manufacturing Co., Duquesne, Pa., has announced that it will open a branch factory in Atlanta, Ga. The company has other branches at Chicago and Brooklyn.

R. L. Watkins Buys Delatone

R. L. Watkins Co., Newark, N. J., has acquired the Delatone Co., Chicago, manufacturer of a cream depilatory.

American Lanolin Appoints Innis, Speiden

American Lanolin Corp., Lawrence, Mass., has appointed Innis, Speiden & Co. as their sales representatives in the cities of New York and Philadelphia. Innis Speiden will carry stock in both cities, and thus be in position to make prompt delivery to the cosmetic and pharmaceutical trade.

Certified Drug Products Labs.

A. H. Mosenson has been elected president of the Certified Drug Products Laboratories, Inc., a newly organized firm of manufacturing druggists, with offices at 811 West Jackson Boulevard, Chicago, Ill. Mr. Mosenson was formerly associated with Walgreen as district advertising manager.

Pittman-Moore Opens N. Y. Office

Pitman-Moore Co., Indianapolis, has opened a branch office in New York. This office carries a complete line of the company's pharmaceutical and biological products.

Revson Appoints Sears

R. F. Revson Co., New York, has announced the appointment of A. W. Sears, Mason, Tenn., as South Central representative. He will cover the territory included by Tennessee, Mississippi, Kentucky and Alabama.

Katz Not Violating Code

Federal Judge John P. Nields in the district court in Wilmington, on February 23 denied an application for an injunction made by the Chicago Flexible Shaft Co. which sought to restrain the Katz Drug Co., from selling a household food-mixer for less than $21 each, which price the manufacturer had fixed.

Leeben Color Book

Leeben Chemical Co., New York, has published its new price lists on cosmetic and certified colors. These indicate the colors suitable for face powders, rouges, lipsticks, nail preparations, hair preparations, etc., together with prices. Copies are obtainable upon request. This company is the successor to H. Lieber & Co. which was established in 1899.

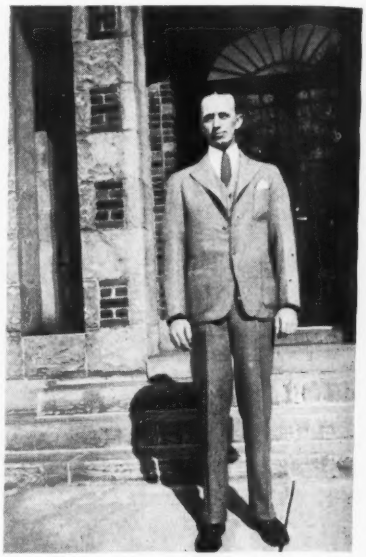
Seebach Booklet

Edwin Seebach Co., New York, has just issued a new catalog and price list. This is attractively presented in an eight-page booklet printed on gray paper. It includes representative items of the company's aromatic chemicals; complexes, fixatives and specialties; chlorophylls; "Aussel Fils" French essential oils; Turtle oil, 100%; perfume oils for perfumes, lotions and cosmetics, etc. Cosmetic manufacturers desiring this catalog may obtain it free of charge upon request to the company.

Ungerer Reopening Boston Office

Ungerer & Co., New York, importers, agents, and distributors of essential oils and synthetic aromatic chemicals, has just completed arrangements for the reopening of its Boston office, April 1st.

The office will again be in charge of



GEORGE R. MacDONALD

George R. MacDonald, who is well-known to the Boston and New England trade, because of the seven years spent in that territory prior to the closing of the office in September 1932.

The new office site has not yet been selected, but it will be announced immediately after April 1st.

Cosmetic Imports Up

Imports into the United States during 1933 of cosmetics and materials used in the manufacture of cosmetics registered a value increase of approximately $300,000 as compared with the preceding year, and totaled $1,734,000, according to C. C. Concannon, Chief, Chemical Division, Department of Commerce.

The 1933 imports, it is pointed out, were less than one-fourth of those for 1927, the value in that year having been $7,044,000. The import gain in the group enumerated was not general, however, there being an actual decrease in purchases of foreign-made face powders, rouges, lipsticks, creams and other cosmetics. Perfumery and toilet water accounted for $511,000, a gain of $200,000 over the 1932 figure. Perfume materials, the report states, were also imported in greater quantities.

Compare your

Lipsticks
Rouges
Mascara
Powders

and other cosmetics, both as to quality and price, with those produced by Sterling. You, too, may find it more economical to buy from us than from your present source. Or, perhaps, if you are considering manufacturing yourself, you may find that Sterling's quantity production, is considerably cheaper than your own production costs. **Our prices will save you money and our quality bring you repeat sales.**

STERLING MANUFACTURING CO.
BELLEVILLE, N. J.

Cetyl Alcohol

Technical (88%)
Refined (94%)
Pure (practically C.P.)

Used in face creams, lipsticks, ointment bases, shaving creams, etc.

For most cosmetic purposes, the pure and refined grades are satisfactory.

Prices and samples on request.

Ask for List of all Cosmetic Chemicals

R. F. REVSON CO.
91 Seventh Avenue **New York**
Specializing in
Chemicals for the Cosmetic Industry

SOUTH CENTRAL REPRESENTATIVE:
A. W. SEARS, Mason, Tenn.

Beeswax

World markets are carefully searched for the best selected crudes.

Handled, refined and checked for purity by workman with years of experience in Beeswax, these crudes are then . . .

Bleached by sun and air only in the hills of Massachusetts where the air is uncontaminated by dust and dirt particles.

The W. H. BOWDLEAR CO.
SYRACUSE, N. Y.

Representatives:

L. A. Barber, 43 South Portland Ave., Brooklyn, N. Y. Telephone: NEvins 8-9124
J. C. Ackerman, 420 Oliver Bldg., Pittsburgh, Pa.
J. L. Matthieu Sons, 239 Chalmers Ave., Detroit, Mich.
Riviera Products Co., 215 W. Ohio St., Chicago, Ill.

MYSORE GOVERNMENT
Sandalwood
Oil

Distilled from
Santalum Album

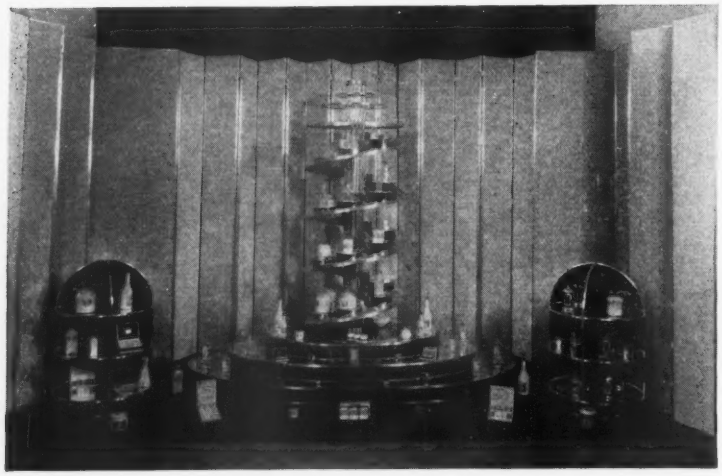
INSIST ON ORIGINAL CANS AND CASES

Agents for the
United States and Canada

W. J. BUSH & CO.
(Incorporated)
Essential Oils
New York

Chicago **National City, Calif.** **Montreal**

Unusual Window



A YARDLEY WINDOW DESIGNED BY NORMAN BEL GEDDES

Pure Cod Liver Oil

In connection with an article published in a previous issue of this magazine in which it was intimated that Norwegian medicinal cod liver oil in certain instances had been blended up to the extent of 10 per cent with seal oil, our attention has been called to the fact that such a rumor is entirely without foundation. It is a well known fact that all medicinal cod liver oil destined for human consumption which is being exported from Norway is subject to a strict Government control. A recent check-up has again established that this control is being scrupulously carried out by the officials in charge, and that no consignment of cod liver oil for human medicinal use is allowed to leave Norway which is not 100 per cent pure and undiluted.

Abbott Increases Directors

The following directors were reelected at the annual meeting of the Abbott laboratories, at North Chicago, February 15: E. H. Ravenscroft, S. DeWitt Clough, R. M. Cain, J. F. Stiles, Jr., E. L. Drach, Dr. R. H. Volwiler, Dr. George W. Raiziss, Fred W. Scheigert, Fred Young, Jay Dunn and A. W. Bays.

The directorate was increased from eleven to fifteen, two of the additional places being filled at this meeting by Dr. J. F. Biehn and Carl Nielsen.

The following officers were reelected by the board of directors: E. H. Ravenscroft, chairman of the board; S. DeWitt Clough, president and general manager; R. M. Cain, executive vice-president; J. F. Stiles, Jr., vice-president and treasurer; Dr. E. H. Volwiler, vice-president in charge of research and A. W. Bays, secretary and general counsel.

A. M. A. Accepts

DIPHTHERIA TOXOID, NATIONAL

Diphtheria Toxoid (Alum Precipitated), manufactured by National Drug Co., Philadelphia.

DIPHTHERIA TOXOID, SQUIBB

Diphtheria Toxoid Alum Precipitated, manufactured by E. R. Squibb & Sons, New York.

Removals

HEWITT SOAP CO.

Martin Schultes, vice-president, Hewitt Soap Co., Inc., has announced the removal of his New York offices from Suite 1154 to Suite 1145, in the same building, 47 West 34th Street, where there is four times the space the company had in the old quarters.

This move was made necessary by reason of the steady increase in business, and also completes the record—of our business growing to the extent that a move has been necessary every two years, for the past eight years. The telephone number remains the same.

RODRIGUEZ MOVES

John H. Rodriguez Co., New York, has moved its offices to 135 William st., that city. Telephone numbers remain unchanged—BEekman 3-6985 and 3921.

DICK DUNN DRUG PRODUCTS

Dick Dunn Drug Products Co., St. Louis, has moved to larger quarters at Spruce st. and 12th Boulevard, that city.

Feen-a-mint Gets Gershwin

Feen-a-mint is now featuring George Gershwin in a radio program broadcast each evening at 7.30 E. S. T. over NBC.

Sterling's New Plant

Sterling Manufacturing Co., Belleville, N. J., has announced its removal to larger quarters in a new two-story fireproof brick building in that city. In its new home, Sterling has given a complete floor over to manufacturing, each department being separated, with individual rooms for creams, powders, lipsticks and rouges, etc. The other floor is occupied by an assembly room and by the company's general offices, while two detached buildings are used for storage purposes.

This is the third location which has been occupied by this organization since it was founded in 1929. Each removal has been made necessary by increasing demands of the growing business and in its new building the company has eight times more floor space than when it started business in 1929.

Giese's Filter Papers are the Best

Folded Paper

Bale of Filter Paper

Heavy Linen Fibre Filter Paper for Rapid Filtration of Large Quantities —Very Strong.

PACKED AS FOLLOWS:

13 inch, 55 lb. Bales	20 inch, 110 lb. Bales
15 inch, 55 lb. Bales	24 inch, 55 lb. Bales
18 inch, 55 lb. Bales	26 inch, 55 lb. Bales

32 inch, 55 lb. Bales
Also folded—packed in cartons

Free illustrated leaflet on request

AUGUST GIESE & SON
Importers
300 Fourth Avenue : : : NEW YORK

Gums

"Look for the Symbol of Standardization"

FOUNDED T & B 1856

Arabic Damar
Karaya Copal
Shiraz East India
Tragacanth

All powdered gums standardized by Laboratory Control

THURSTON & BRAIDICH
55 Vandam Street New York
Represented in Chicago by A. C. Drury & Co., Inc.

U. S. P.

ZINC OXIDE

. . . . . by the pioneer manufacturer of zinc products . . . . . .

THE NEW JERSEY ZINC COMPANY
160 FRONT STREET, NEW YORK

Chicago Cleveland San Francisco

DERMALAC

A new concentrated rubber latex material entirely suitable for present processes in the compounding of creams, massages, mask preparations and similar cosmetic products. DERMALAC liquefies when heated and possesses exceptional cleansing properties. Completely free from ammonia odor.

Grade Samples Available On Request
PATENTS APPLIED FOR

HEVEATEX CORPORATION

MAIN OFFICE
78 GOODYEAR AVE.
MELROSE, MASS.

NEW YORK OFFICE
90 BROAD STREET
NEW YORK CITY

Akron, Ohio *Chicago, Ill.* *Detroit, Mich.*

Abbott 100% Club

S. DeWitt Clough, president, Abbott Laboratories, North Chicago, Illinois, has recently established the Abbott 100% Club. Membership is limited to field representatives, district sales and branch managers who accomplish 100% of their quotas in any sales campaign. Suitable awards will be distributed.

Officers for the first six months of 1934, selected by virtue of their accomplishments during the "Make Your Goal Campaign of 1933" are L. M. Kremer, Chicago, president, who attained the highest place with a quota accomplishment of 205.2%. W. B. Wilson, southern New Jersey, becomes vice president, with a standing of 166.13%. G. E. Redfern, eastern Pennsylvania whose standing was 160.76% and W. C. Walsh, Boston, with a standing of 152.16%, automatically qualified as treasurer and secretary, respectively. A total membership of 106 consisting of men who reached 100%, start the Club for 1934.

During the recent sales campaign the Philadelphia branch, managed by H. P. Dowling, stood highest with a quota accomplishment of 126.60%. District No.12, Louis Horrvich, Manager, was high among the sales districts with a quota accomplishment of 126.46%.

J. T. Baker Elects

The annual director's meeting of the J. T. Baker Chemical Co. was held at Phillipsburg, N. J., on February 16th. The following officers were re-elected: chairman of the board, J. T. Baker; president, H. H. Garis; vice-president and secretary, F. W. Fitzgerald; treasurer, R. H. Willever. Other directors attending were C. D. Davis, W. H. Walters, and R. A. Clark.

H. T. Warren has been appointed Eastern sales representative of Standard Specialty & Tube Co., New Brighton, Pa. Mr. Warren is well known in this field and is also representing C. F. Hatch Co., Lowell, Mass., in the New York territory. His offices are at 122 E. 42 st., New York. Telephone LExington 2-9881.

Wynmalen Recovering

J. A. J. Wynmalen, of Polak & Schwarz, who is connected with Budd Aromatic Chemical Co., New York, Polak & Schwarz's U. S. agents, is now rapidly recovering from a serious attack of pneumonia. His address is 195 Highland ave., Ridgewood, N. J.

Lavena's New Product

The Lavena Corp., Chicago, has introduced a new product called, "Lavena Oatmeal Skin Beauty Treatment."

Mineral Oil Duty

That medicinal mineral oil has been properly classified for duty under paragraph 5 of the Tariff Act of 1930 under the words in this paragraph which say "all other medicinal preparations not specifically provided for," has been decided by the United Sattes Customs Court in a two to one decision handed down February 21. The suit to recover duties paid under this classification was brought by S. Schwabacher & Co., Inc., New York.

Judges McClelland and Sullivan concurred in the majority opinion, and Judge Brown wrote the dissenting opinion.

Mineral oil was formerly entered free of duty in accordance with paragraph 1733 of the free list which specifies "all distillates obtained from petroleum including paraffin oil." Since the U. S. P. mentions paraffin oil as a synonym for mineral oil, the contention was made that mineral oil was specifically mentioned in the free list. Further it was contended that mineral oil is not a medicine since it is not absorbed and its action is purely mechanical.

The majority decision found that the product is a medicinal preparation, but accepted testimony of experts in the petroleum business, who had never handled the product, to the effect that paraffine oil did not mean mineral oil.

Judge Brown in the dissenting opinion, agreed that mineral oil is a medicinal preparation. However, he contended that the product is specifically provided for in the free list both as a distillate of petroleum and as paraffin oil. To quote from Judge Brown's minority decision:

"The majority holding breaks up a long-established administrative practice in the light of which Congress enacted paragraph 1733. It flies in the teeth of the simplest and most elementary rules of statutory construction in customs and elsewhere, that the particular always controls the general. The term "medicinal preparations" this assumes an amusing and enormous bulk, and it destroys many narrow *eo nomine* provisions elsewhere.

"The attempt to bolster the holding by referring to the testimony of witnesses who traded only in lubricating oils is ludicrous in the extreme. That would be a monstrous way to concoct a commercial name for the article, if that is what is meant."

Financial

U.S.I. Converts Penn-Maryland Stock

U. S. Industrial Alcohol Co. has sold to the National Distillers Products Corp. its 50 per cent interest in Penn-Maryland, Inc., for 138,000 shares of National Distillers capital stock, which at current market rates has a worth of about $4,150,000. As a result of the sale, Charles E. Adamson and Charles S. Munson, chairman and president, respectively, of U. S. I., have been scheduled for election to the board of the National Distillers company. Penn-Maryland, Inc., was formed July 1, 1933, with a capital of 100,000 no-par shares, each company taking one-half. The capitalization was increased in September, 1933, to 350,000 shares.

Earnings & Dividends

ABBOTT LABORATORIES

The Abbott Laboratories, Inc., Chicago, has declared an extra dividend of 10 cents a share and the regular quarterly dividend of 50 cents a share on its capital stock, both payable April 1 to March 15.

AFFILIATED PRODUCTS

Affiliated Products, Inc., and subsidiaries earned a net profit of $375,778 for the year ending December 31, 1933, after deductions for depreciation, federal taxes, etc. This is equivalent to 98 cents a share on the 382,800 no-par shares of common stock.

In 1932 the profit of Affiliated Products was $639,227 or $1.67 a share.

On December 31, 1933, the current assets of the company amounted to $583,216, including $247,012 cash, and current liabilities, including reserves for the payment of taxes, totaled $172,117.

At the end of the preceding year the company had $199,072 in cash; current assets of $702,580, and liabilities, including reserves for taxes of $265,891.

COLGATE-PALMOLIVE-PEET

Colgate-Palmolive-Peet Co., has reported a net income of $373,398 for the year 1933, after charges and all deductions. This was equal to $1.50 a share on 248,197 shares of 6 per cent cumulative preferred stock and it compared with $53,301, or 21 cents a share on the preferred in 1932. As a result of the depreciation of the American dollar, the company added $1,302,906 to surplus as a credit arising from conversion of net working capital of foreign subsidiaries and branches to dollars at the end of the year.

The balance sheet as of December 31, 1933, showed current assets of $36,092,856 and current liabilities of $4,399,445, which compared with current assets of $36,154,294 and current liabilities of $4,206,622 at the end of 1932. Surplus at the beginning of 1933 was set at $8,203,635, which had been reduced to $6,171,850 at the end of the year.

EMERSON'S BROMO-SELTZER

Emerson's Bromo-Seltzer, Inc., and subsidiaries report for 1933: Net profit after taxes, depreciation, minority interests and other charges, $1,316,111, equal after 8 per cent preferred dividends to $1.69 a share on 663,558 combined average shares of A and B common stocks. During 1933 a provision of $512,000 was charged against surplus to create reserves for decline in market value of investments and probable losses on certificates of indebtedness, beneficial interest of reorganized banks and banks in process of liquidation. Losses amounting to $632,430 on securities sold

GEORGE LUEDERS & CO.

(Established 1885)

427-429 Washington St., NEW YORK

Branches:
CHICAGO SAN FRANCISCO MONTREAL
Factory: BROOKLYN

Manufacturers, importers and dealers in
ESSENTIAL OILS
and
SYNTHETIC AROMATIC CHEMICALS

Our Specialty
Perfumery Compounds for Cosmetics and Toilet Articles in General

With our long and varied experience we may be in position to assist you, or to solve one or another of your problems if you will consult with us.

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"Quality Since 1833"

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or written off in 1933 were charged to reserves so created in that year and a prior year.

LEHN & FINK

For the year ended December 31, 1933, the Lehn & Fink Products Co. reported a consolidated net profit of $807,286, after taxes and other charges. This was equal to $2.01 a share on 400,000 capital shares and it compared with a net of $1,244,376, or $3.04 a share on 408,966 shares in 1932. Profit of $164,421 from foreign exchange was not included in the 1933 net. Current assets at December 31, 1933, amounted to $2,046,846 and current liabilities were $330,800.

In a statement accompanying the annual report, Edward Plaut, president of the company, informed the stockholders that the company acquired during the year in open market a sufficient amount of its own stock to reduce the outstanding stock to 400,000 shares. Total numbers of shares held in the treasury is now 19,166, and the directors have recommended to the stockholders that these shares be retired and cancelled. Such purchase will result in increasing the earnings per share on the remaining 400,000 shares outstanding, he said.

MERCK CORP.

The Merck Corp. reported a net income of $1,068,848 for the year 1933 after all charges and deductions. This was equal to $10.68 a share on 100,000 shares of no par capital stock, comparing with a net of $558,848, or $5.58 a share, in 1932. The company's balance sheet of December 31, 1933, showed current assets of $6,027,046 and current liabilities amounting to $730,654, which compared with $5,328,528 and $401,458, respectively, at the end of 1932.

In his remarks to the stockholders, George W. Merck, president of the company, stated that during the year the remaining first mortagge bonds on Merck & Co., due in 1937, were completely retired by the payment of $300,000, and the mortgage was discharged. He also stated that it was deemed advisable by the directors of Merck & Co., the operating subsidiary, to set up a reserve of $100,000 to bring down to a more conservative value the amount at which that corporation carries its investments in affiliated companies. It also increased the reserve for contingency by about $115,000.

MONSANTO CHEMICAL CO.

The Monsanto Chemical Co. reports that its earnings for 1933 were the largest in its thirty-year history. Earnings after all charges were $2,221,207, which was equal to $5.14 a share on 432,000 shares outstanding and compared with $1,012,698, or $2.37 a share in 1932.

Net current assets on Dec. 31, 1933, were $5,316,541, against $5,275,670 at the end of 1932. The revaluating of the sterling assets at $4.85 to the pound compared with $3.33 on Dec. 31, 1932, added $288,379 to the net assets. The report points out, however, that in 1933 $514,000 of the 5½ per cent first-mortgage bonds were called and bought at 102; that $1,019,135 was expended for the new plant and that other investments amounted to $1,132,194.

In his letter to stockholders Edgar Monsanto Queeny, president, said sales for the year were 32.8 per cent greater than in 1932.

Stockholders of the company have been notified that at their annual meeting on March 27 the directors will submit a proposal to increase the authorized capital stock from 500,000 to 1,250,000 shares. There also will be submitted a proposal to capitalize $4,320,000 of the paid-in surplus of the company and to distribute the additional capital stock thus created among stockholders share for share. This would give each stockholder an additional share for each one he then holds.

NEW JERSEY ZINC

For the year ended December 31, 1933, the New Jersey Zinc Co. has reported a net income of $3,994,073 after expenses, depreciation, taxes, depletion and contingent charges. This was equal to $2.03 a share on 1,963,264 capital shares, par $25 each. It compared with a net income of $2,013,120, or $1.02 a share, in 1932.

There was a net income of $1,108,783 for the quarter ended December 31, which was equal to 56 cents a share and which compared with $1,514,909, or 77 cents a share, in the preceding quarter, and with $417,790, or 21 cents a share, in the fourth quarter of 1932.

PEOPLE'S DRUG STORES

Peoples Drug Stores, Inc., and Subsidiaries—For 1933: Net profit after depreciation, amortization, Federal taxes and other charges, $643,589, equal after 6½ per cent. preferred dividend requirements to $4.27 a share on 118,837 no-par common shares, excluding 3,900 shares held by company. This compares with $511,795, or $2.99 a share on 122,737 common shares, in 1932.

HELENA RUBINSTEIN

Helena Rubinstein, Inc., and subsidiaries reports for 1933: Net profit after depreciation, Federal taxes and other charges, $182,408, equal to $1,69 a share on 107,487 no-par shares of $3 convertible preference stock, against $120,903, or $1.09 a share on 110,579 preference shares in 1932.

SHARP & DOHME

The report of Sharp & Dohme, Inc., for the year ended December 31, 1933, showed a net profit of $975,379, after depreciation, taxes, provision for contingencies and other charges. This was equal to 22 cents a share on 776,627 no-par common shares, after annual dividend requirements on the company's $3.50 cumulative convertible preference stock. It was comparable with a net profit of $703,479, or $3.70 a share on 229,085 shares of preference stock in 1932.

The company's consolidated balance sheet as of December 31, 1933, showed current assets amounting to $7,186,629, including $1,709,305 cash and United States Treasury certificates, and current liabilities of $437,327. These figures compared with current assets of $6,676,219, including $1,834,621 cash and treasury certificates and current liabilities of, $271,553 at the end of the preceding year.

STERLING PRODUCTS

Net income of Sterling Products, Inc., for 1933 was $8,161,976 after all charges. This was equivalent to $4.66 a share on 1,750,700 shares outstanding. Net income in 1932 was $9,348,314, or $5.34 a share, on the same capital basis.

The report says that of the net in 1933, $2,295,234 represents net income in the last four months of the year after the dissolution of Drug, Inc. The 1933 balance sheet shows current assets of $29,897,815 and current liabilities of $3,588,181, leaving net working capital of $26,309,636. Included in the current assets is $8,873,034 in cash and $12,552,387 of United States Government securities.

U. S. INDUSTRIAL ALCOHOL

U. S. Industrial Alcohol Co. and subsidiaries reported for the year 1933 the net earnings of $1,392,962 after all charges and taxes, equivalent to $3.56 a share on the outstanding 392,238 capital shares. This compared with a net income of $176,105, or 47 cents a share on 373,846 shares reported in 1932. The 1932 net earnings was before writing down inventories at December 31, 1932, by the amount of $1,500,000.

Sales of the company increased 23 per cent over 1932. The balance sheet shows current assets of $9,563,152 on December 31 and current liabilities of $1,362,773, leaving a net working capital of $8,310,379. This compared with working capital of $6,890,650 a year earlier, when net assets were $8,085,551 and current liabilities were $1,194,901. The balance sheet shows inventories carried at the lower cost or market values, less reserves of $5,011,933, comparing with $5,342,393 a year earlier. During the year the earned surplus account increased to $5,396,377 from $4,003,414.

VICK CHEMICAL CO.

Net profit of Vick Chemical, Inc., for 1933 was $2,339,296, equivalent to $3.34 a share on the 700,280 shares of stock outstanding. This compares with a net of $3,209,275 in 1932, or $3.74 a share, on the basis of the new capitalization. Of the net in 1933 $1,442,746 came after dissolution of Drug, Inc., on Sept. 1.

The 1933 balance sheet shows current assets of $7,068,087 and current liabilities of $977,108, leaving net working capital of $6,090,979. Of the current assets, $2,782,319 is in cash and $2,154,453 is in United States Government securities.

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Light. Great Adhesiveness. Pure White. Immeasurable Fineness. Heavy if desired. Dusts out under the puff like the finest pollen

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Murray Breese Merges

Murray Breese, advertising agent, New York, has merged his business with that of Lewis-Waetjen Agency, Inc., under the name of Breese-Waetjen, Inc. The merger took place following the death of Mr. Waetjen in a recent commercial plane crash.

Mr. Breese is well known in the drug trade, having been editor of the "American Druggist," assistant sales manager and

MURRAY BREESE

advertising manager of Health Products Co. Formerly he was managing editor of "Drug Trade News" and "Drug Topics."

Obituaries

Frederick Edward Watermeyer

Frederick Edward Watermeyer, president of Fritzsche Brothers, New York, died suddenly March 19 at the age of sixty years. Mr. Watermeyer, who was particularly well known and highly respected in essential oil, drug and cosmetic circles, was born in Leipzig, Germany, July 8, 1873. He had been connected with Fritzsche Brothers since 1895—a total of thirty-nine years.

A naturally quiet man with a profound knowledge of the business in which he was engaged, Mr. Watermeyer was a most easy man to meet. Of very pleasant personality, he was an interesting man to engage in conversation. The essential oil trade throughout the country, and particularly the entire drug and cosmetic trade in New York has suffered a great loss.

Mr. Watermeyer was a member of the New York Athletic Club, Canoe Brook Country Club, Columbia Yacht Club, Drug & Chemical Club (N. Y.), and Albion Lodge No. 26.

Walter B. Swindell

Walter B. Swindell, president of Swindell Brothers, died March 13 at his home in Roland Park, Baltimore, following an attack of acute indigestion. Mr. Swindell was eighty-three years old at the time of his death. He was one of the original founders of Swindell Brothers which company was founded sixty years ago.

William Peet

William Peet, a founder of Peet Brothers, pioneer soap manufacturer of Kansas City, Mo., and which firm is now a part of the Colgate-Palmolive-Peet Company, died March 4 at his home in Beverly Hills, Calif. He was eighty-seven years old and a native of Chatteris, England. He came to this country when fifteen years old and soon after his arrival went to Kansas City, establishing the soap business in 1872, or when he was twenty-six years old. It was merged with The Palmolive Company in 1926 and Mr. Peet retired in 1907.

Edward Palmer

Edward Palmer, president of Solon Palmer, New York, and one of the oldest American perfumers, died at his home in that city on February 24.

Ralph H. Speed

Ralph H. Speed, vice-president of the Northam Warren Corp., New York, in charge of European operations, died in London, England, February 16.

Jacob B. Swindell

Jacob B. Swindell, who was for fifty years a member of the firm of Swindell Brothers, Baltimore, died March 6 at his home in Baltimore after a lingering illness. He was eighty-two years old and at one time was one of the foremost glass makers of the country.

Charles O. Filkins

Charles O. Filkins, president of the Cobbe Pharmaceutical Co., died recently. He was born in Lowell, Mich., and started in the drug business in Belding, Mich., at the age of 17. He was at one time associated with Wm. R. Warner & Co. and with Parke, Davis & Co.

Dehumidification

(*Continued from page 234*)

requires electric power for a $^1/_{16}$ horse power motor, a water supply and a drainage. The cost of operation is comparatively cheap for the work performed and because of this is allowed to operate continuously.

Air can be dehydrated by this method without materially changing its temperature and over a wide range of temperature which is useful in an industry where temperature and humidity are so closely related as in the manufacture of chemical products for medicinal purposes.

The installation has proven very satisfactory and the improvements are:

1. The period of drying is constant.
2. This period of drying approaches 10% of that formerly required.
3. Since the air is recirculated through the unit, considerably less heat is required.
4. Salts can be satisfactorily filled on days when the humidity is high.
5. A more uniform and higher quality product is obtained.

Foreign Trade-Marks

(*Continued from page 232*)

against an imitation. In some, because of lingual differences, the American mark may be unsuitable. It is not uncommon to be obliged to choose special marks for Spanish-speaking countries, for instance. Most countries prescribe a form of notice of registration which must be used with a registered mark, and many forbid the use of any other markings. Some have special rules about renewals and dates for renewal. In cases where a foreign registration has been granted upon the basis of a United States registration (as is required in many foreign countries), there is usually a requirement for proof of renewal of the United States registration.

It is easy for an American manufacturer, far away from the country and unfamiliar with such matters, to overlook some of these details or to underestimate their importance. His agent or distributor, if he has a special agent, may call them to his attention; but they are technical requirements with which the agent too may be unfamiliar. The only safe course for any exporter is to obtain and follow competent legal advice respecting the requirements of each country to which he sends his goods.

MAGNESIA *Levissima* OXIDE U.S.P.

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MILK of MAGNESIA

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Also Magnesium Carbonate, U. S. P. and Technical, powder and blocks, and Magnesium Hydrate, Pharmaceutical.

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PURE — SAFE — NEUTRAL

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Puts luster into your creams. Absorbs 5 times its own weight of water.

BASE NOT GREASY

Curtails shrinkage in vanishing creams. Improves shaving creams, cold creams, etc.

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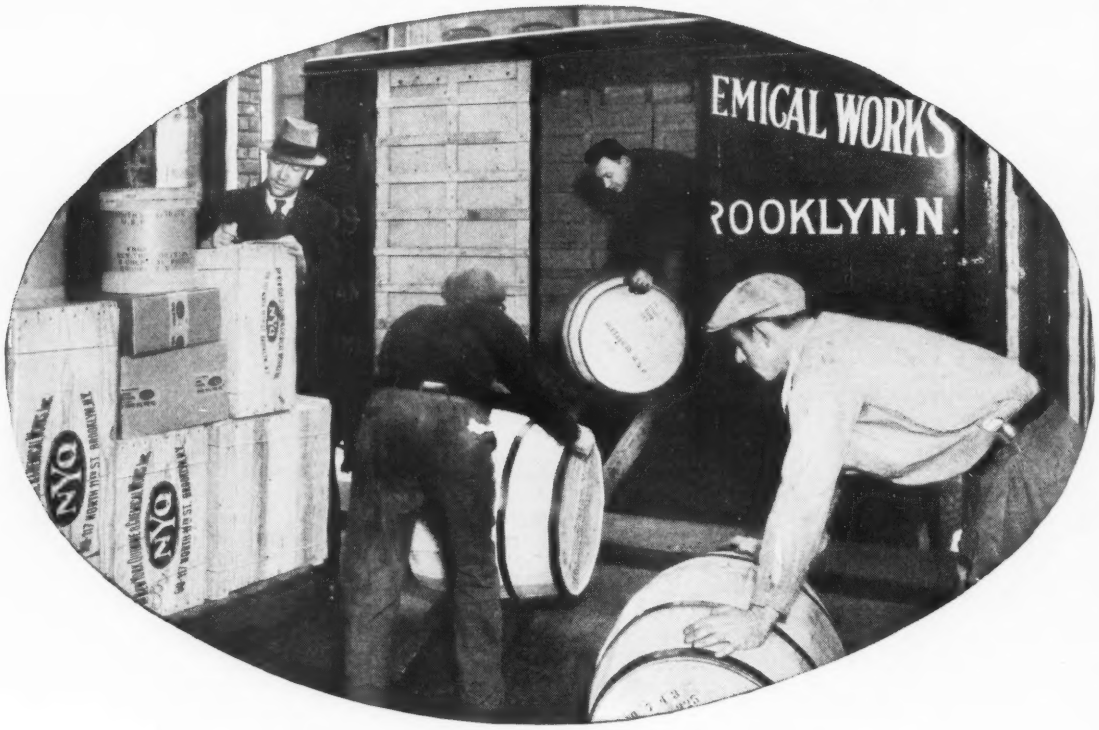

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RAW MATERIAL MARKETS

Price Indexes

The net changes in the total drug and cosmetic index of 50 commodity prices from February to March was positive. Throughout a period of stabilized currency the index rose from 68.3 to 69.2.

Medicinal chemicals changed in average from 76.1 to 77.5 in March. All changes in the index commodities were increases. Iodine at the same sterling quotation was higher in dollar value because of the rise of the pound; cod-liver oil was marked up to $28.50 from $27.00; cream of tartar rose three-quarters of a cent to 18½ cents; menthol was quoted at $2.75 instead of the previous $2.50; metallic mercury is now at $75.50 a flask.

Botanical prices rose a full unit from 67.1 to 68.1. Four changes in the index commodities were in an upward direction: aloes in March cost 14 cents as against 13 cents in February; buchu continued its upward trend, reaching 24 cents; nux vomica changed from 5 cents to 6 cents; orris reached 8 cents.

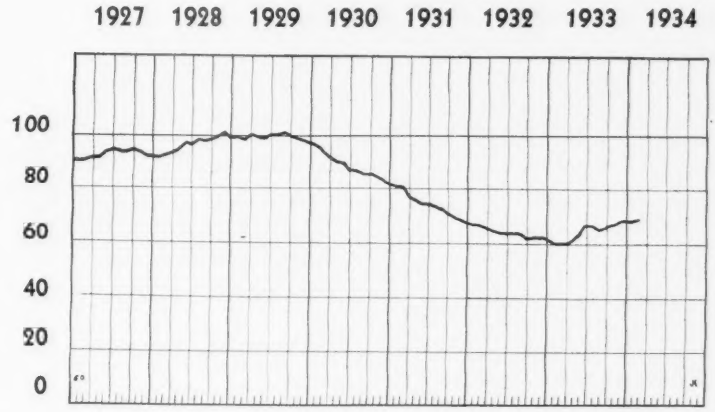
Essential oils continued to show the effects of a too rapid rise in price, the index declining further to 53.8. Ten of the fifteen oils in the index changed price. Increases were registered by lavender, which rose from $3.20 to $3.75, by peppermint which changed from $2.45 to $2.55 and by sandalwood, from $5.95 to $6.00. The other 7 products declined: anise from 45 cents to 43 cents; bergamot from $1.75 to $1.65; bois de rose from $1.30 to $1.25; cassia from $1.15 to $1.10; citronella fell to 40 cents from 45 cents; lemon oil was $1.15, contrasting with the previous .25; limes fell from $9.50 to $9.25.

The cosmetic raw material index showed a distinct rise, from 70.0 in February to 73.2 in March. All changes were increases; products changing were balsams copaiba and Peru, candelilla and Japan wax, stearic acid, glycerine, lanolin and menthol.

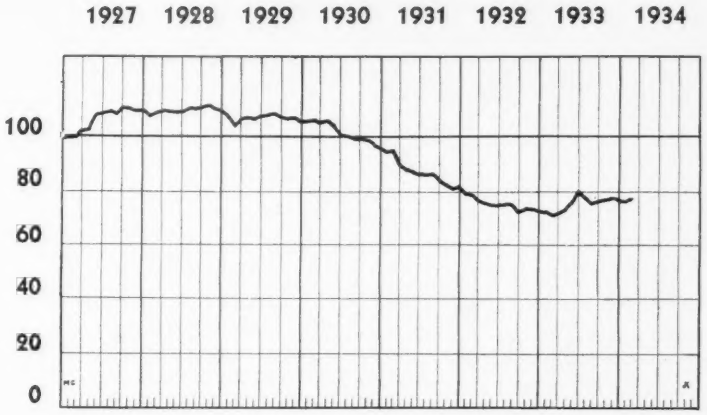
Fine Chemicals

Prices were under the influence of strong conditions. A good demand prevailed, exchange was firm and domestic cost of production was higher. These conditions lead to an advance in the price of numerous items in this market. Certain of the mercurial group reflected the higher price of

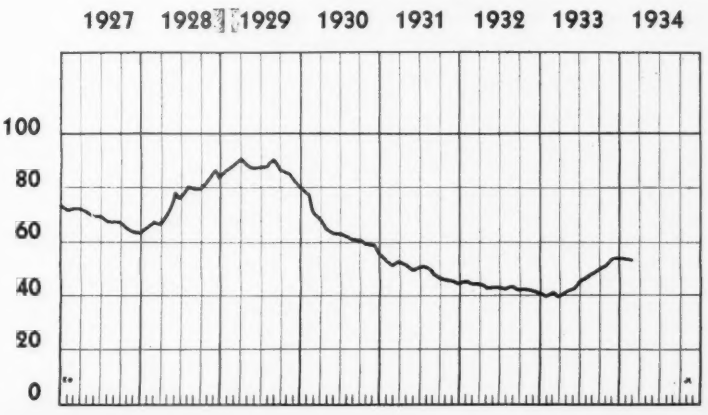
50 Raw Materials—Weighted Index
1926 Average Prices Equal 100



15 Medicinal Chemicals—Weighted Index
1926 Average Prices Equal 100



15 Essential Oils—Weighted Index
1926 Average Prices Equal 100



quicksilver and practically all of the strychnine salts were advanced with the exception of alkaloid and sulfate, as the comparative relationship between the major and minor salts had been out of line for some time.

ALCOHOL—Up until late trading the consumption of anti-freeze continued to run to excellent volume. The prolonged and severe winter had a splendid effect on the consumption of this grade, the large volume of business being done having the tendency to strengthen the whole situation. There is no doubt, however, that from now on the movement in this grade will slow down. The alcohol market, just ending its most active season, presents a firm price position. Raw material—both grain and molasses—continue high and labor costs have also increased. It is not likely, therefore, that the price schedule for the second quarter, due in April will be any lower than now prevails.

ALOIN—Recent price advance was maintained with some sellers being unwilling to offer freely as they are faced with a future of rising raw material prices. Current small stocks will soon have to be replaced by higher cost material. The situation is one of real strength.

CITRIC ACID—Interest still lagged in this item but it will not be long before the spring and summer requirements of manufacturing consumers reach the market. Buyers will find the market very favorable from a price standpoint. Ample supplies also seem available.

COD LIVER OIL—Quotations in Norway have been steadily advancing as a result of the poor fishing results. The bad weather has retarded the fishing to the extent that it is running considerably behind last year. The results up to February 19 were: 8,109 tons of cod and 3,809 hectoliters of oil, as compared with 11,789 tons of cod and 6,695 hectoliters of oil at the same date in 1933. Prices for livers have also advanced and producers are still holding for higher figures.

Although this is the season of declining activity in this commodity, leading factors on spot continue to report an active movement against contracts. Prices on spot have also reflected the primary market position and have again been advanced with oil as to quality and brand being offered at from $28.50 to $30.00 per barrel.

CREAM TARTAR—Higher by ¾ of a cent in line with the stronger position of all tartar products. In barrels the pound price was 18½c with lots of 5 barrels or over at 18¼c. These quotations were F. O. B. New York with the usual advance of ½c per pound for Chicago and St. Louis delivery. Orders were being taken for prompt shipment only, no contracts being entered.

GLYCERIN—The market was higher at 12¼c per pound with strong undertones prevailing at the advanced level. A good demand emphasized the rather short supply. The situation is such that some factors are not soliciting new business freely, but are operating on the basis that a further advance is likely. Raw material offerings were at low ebb so far as domestic producers were concerned. Recent inquiry for glycerin from Japan tended to further strengthen the spot market position.

MERCURIALS—The steadily advancing market for quicksilver, now quoted at $76. per flask, has been reflected in the mercurial group where sharp advances took place, in the hard mercurials, with the soft mercurials being in such a firm position that an upward revision is generally expected. The following schedules now prevail:

Calomel	$1.31 per pound
Corrosive sublimate, powd.	.88 " "
" " gran.	.88 " "
" " cryst.	1.03 " "
Red Precipitate USP IX	1.44 " "
Mercury Oxide yellow USP	1.74 " "
White Precipitate, powd.	1.51 " "

Quotations were for prompt shipment only, no contracts being written.

MENTHOL—Although no unusual buying movement is noted in this commodity, spot price is higher at from $2.75 to $2.85 per pound as to quantity, being for the most part a reflection of the primary market position. Statistically the market in Japan is weak but government support and various other factors have counteracted the statistical position to the extent that a strong price position is maintained. In view of this, local factors are unwilling to sell below the minimum of $2.75 for case lots.

A decline in both the quantity and value of imports of menthol was noted in 1933, the figures being approximately 304,000 pounds valued at $630,000, as against 351,000 pounds valued at 734,000 in 1932.

POTASSIUM IODIDE—A reduction was noted in this item during the past month the current market barrel price now being $1.85 per pound or 15c less than previously quoted. Prompt shipment no contracts. Exchange has been favorable to lower prices. No change was made in iodine resublimed U S P and other iodides.

QUININE—Imports of quinine sulfate, and other quinine, and other alkaloids and salts from cinchona bark into the United States during 1933 registered a decided increase over the 1932 figures, as will be noted from the following table. A price decrease in the declared value per ounce is indicated, inasmuch as the increase in value is not quite as great as was that of the quantity.

	1932	
	Quantity	*Value*
Quinine sulfate (oz.)	461,548	153,600
Other quinine, and other alkaloids and salts from cinchona bark (oz.)	321,124	94,000
Other alkaloids, salts and derivatives	.....	103,700
	1933	
	Quantity	*Value*
Quinine sulfate (oz.)	1,638,939	557,873
Other quinine and other alkaloids and salts from cinchona bark (oz.)	1,255,588	357,035
Other alkaloids, salts and derivatives	.....	146,408

ROCHELLE SALT—Fully 1c per pound higher in barrels at 13½c per pound U S P for powder with crystal in barrels at 14½c per pound. Seidlitz Mixture was also higher at 11½c per pound in barrels with 100 pound kegs 12c per pound.

SANTONINE—Showed considerable strength on spot in view of higher European prices and some improvement in demand. Price for domestic material ranged from $48.00 to $52.00 per pound, being an advance of $2.00. The situation as a whole presented an entirely different picture than in the previous month or two when competition was the dominant factor resulting in lower prices.

TARTARIC ACID—Leading producers advanced prices 1c per pound and now quote granular or powder in barrels at 26c per pound and crystal in barrels at 26½c. Prices quoted are f. o. b. New York with the usual ½c per pound advance over these for midwest delivery. No contracts are being written, prices being for prompt shipment only.

Essential Oils

Reports of the majority of dealers indicate continued activity in this market. Particular activity is noted in those items that enter the distilling trades as the distillers continue to buy in very satisfactory volume, but it was said that not by all means was the business confined to this trade. Prices for the most part proved firm although there were several declines noted.

PEPPERMINT—Much strength on spot being a reflection of the firm position in the country where an upward tendency has set in. There did not appear to be sufficient demand on spot to warrant the position taken by this item. Natural oil here ranged from $2.55 a pound to $2.80 as to quantity and opinion of the seller. Redistilled was generally held for $2.80 per pound.

The Department of Commerce reports that exports of 235,000 pounds of peppermint oil from the United States in 1933 nearly equaled the high record of 263,000 pounds established in 1932.

The tendency is for an increasingly large percentage of the domestic production to be sold in foreign markets. In 1933 approximately 47 per cent. of the total crop was exported, compared with 62.8 per cent. in 1932, 33.6 in 1931, 21.1 in 1930, and 20.6 in 1929.

There has been a sharp curtailment of domestic production in the years that exports have increased. The output of peppermint oil fell from 1,103,000 pounds in 1930 to 411,000 in 1932, but rose to 503,000 pounds in 1933.

SPEARMINT—Quite firm in line with the mint oils generally. From $1.20 to $1.35 was generally wanted on spot.

CREOSOTE
CREOSOTE CARBONATE
GUAIACOL
GUAIACOL CARBONATE
POTASSIUM GUAIACOL SULPHONATE

Acetyl Salicylic Acid
Salicylic Acid
Sodium Salicylate
Methyl Salicylate
Minor Salicylates

Benzoate of Soda
Benzoic Acid
Benzaldehyde
Benzyl Chloride
Glycerophosphates

Formaldehyde
Para Formaldehyde
Hexamethylenetetramine
Bromides **Silver Salts**

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NEW YORK

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N. WACKER DR.
CHICAGO, ILL.

Dealers stated the oil was well worth these prices when considered from a replacement position. Stocks in the primary market were not over plentiful and firmly held by those who fully realized the position.

American spearmint oil exports during 1933 amounted to 26,000 pounds valued at $30,000, as against 19,000 valued at $25,000 during 1932. There was a decrease of about 15c per pound in the declared export value.

CITRUS OILS—Exports of American citrus oils during 1933 amounted to 76,000 pounds valued at $64,000, as against 73,000 pounds valued at $65,000 during 1932 as reported by the Department of Commerce.

LAVENDER—This oil continues to be one of the very firm spots in the market. The inside price has again been advanced to $3.75 with the range as to quality at $6.00. Scarcity of the better quality oil continues as heretofore.

Imports of lavender oil during 1933 were greater by 58,000 pounds and $56,000 than during 1932. The declared value per pound for this important raw material, used in the soap, perfume, and pharmaceutical industry, was also 35c a pound more than during 1932, but still far short of the $3.38 a pound reached during 1924. Details of the trade during the past 11 years are shown in the following table:

Imports of Lavender oil into the United States

Year	*Pound*	*Value*	*Average declared value per pound*
1923	243,000	$449,000	$1.847
1924	226,000	764,000	3.380
1925	183,000	598,000	3.267
1926	198,000	509,000	2.570
1927	323,000	927,000	2.869
1928	296,000	708,000	2.391
1929	381,000	906,000	2.377
1930	376,000	722,000	1.920
1931	280,000	500,000	1.785
1932	212,000	228,500	1.077
1933	270,200	384,700	1.423
Aver. 1 yr.	271,655	608,746	2.240

LEMONGRASS—While the spot market price continues unchanged, strength in the primary market is pronounced. According to reports the current level of from $1.15 to $1.40 per pound is very close to the import price. Sellers were therefore reserved in their offerings. Spot sales remained light therefore accounting for the unchanged spot market price.

CITRONELLA—Competition in this item tended to ease quotations. Buyers seemed not in need of more than moderate quantities. The tendency therefore was to force sales on spot.

BIRCH TAR—Up to from 75c to 80c per pound and the market seemed very firm at the advanced level. There was a scarcity of good quality oil here.

BALSAMS—Very strong on the spot market with Peru leading the advance. This grade has been scarce and was marked up to from $1.75 to $2.10 per pound. Copaiba Para was offered at from 40c to 42c with South American USP at from 42c to 44c per pound.

Combined imports of balsams into the United States in 1933 amounted to 326,000 pounds valued at $91,000, an increase of approximately 72,000 pounds over 1932 and 8,000 pounds over 1931.

Waxes

As a whole the market for waxes during the past month was one of continued strength with advances being noted in several items and declines in none. Carnauba was the outstanding feature, the number 1 grade being jumped up sharply to the basis of from 35c to 36c with an exceptionally good demand giving added strength to the primary market position. Candelilla also advanced to from 13c to 14c per pound and Japan to from 7c to 7¾c per pound. Ceresin, beeswax, and ozokerite remain firm but unchanged.

CARNAUBA—Strong throughout the month and higher as noted at from 35c to 36c per pound for No. 1 wax. Unusual activity is reported with importers being uncertain whether available supplies will last until a new crop can be obtained some six months hence. Shippers in Brazil do not offer freely and the opinion in general is that the upward trend will be continued. Europe was also said to have been a very heavy buyer in Brazil which strengthened the market there and reflected in the spot market at New York.

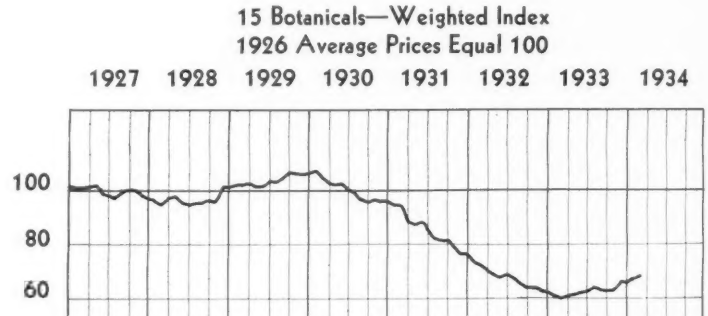
BEESWAX—Market undertones very firm but without open price feature. The range was from 33c to 36c per pound. The market was supported by a very good consumer demand.

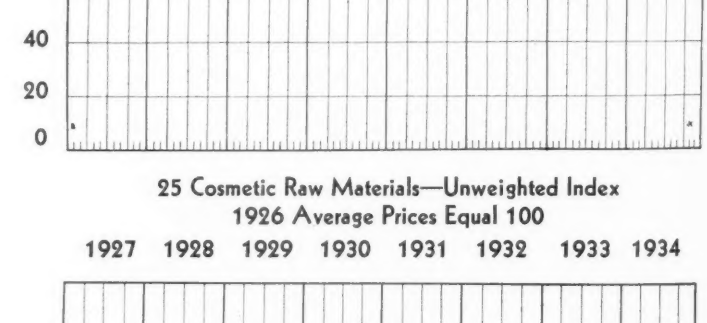
Imports of crude beeswax into the United States were greater in 1933 than in the preceding year, having risen from 3,451,306 pounds, value $467,956 for 1932, to 3,810,958 pounds value $565,877.

CANDELILLA—Higher at from 13c to 14c per pound. Limited stocks available for prompt shipment on spot and the primary market was also nominal from the standpoint of early shipment material. Later offerings were made. Interest in this item continued very good.

Gums

There were few price changes in the gum market during the past month, the exceptions being arabic, seconds, which advanced to from 17c to 18c per pound and





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Test Exchange Brand Oil of Lemon purely on the quality of results it gives in your own finished product.

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The *Clarified* Oil of Lemon

Facts Important To YOU

1. **Flavor** that suggests a freshly-cut lemon
2. Finer **Aroma**
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5. **Uniform Performance**
6. **Lower Cost** per unit of flavor

AND NOW...

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TO LEMON EXTRACT MANUFACTURERS—Make a 5% Solution of Exchange Brand Oil of Lemon in 95% alcohol and get immediately a clear lemon extract. No cloud. No delay. No waste. A 5% by volume solution in alcohol conforms to the U. S. Government's definition of lemon extract.

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Distributors for
CALIFORNIA FRUIT GROWERS EXCHANGE
Products Department, Ontario, California
Producing Plant: EXCHANGE LEMON PRODUCTS CO., Corona, Calif.

Copr., 1934, Products Department, California Fruit Growers Exchange

gamboge which was up to from 60c to 65c. The balance of the group was classified as firm but without open price feature.

ARABIC—Local sellers adhered to former prices in the face of a continued firm primary market as consumer demand here has not been particularly active. The exception was an advance in seconds to from 17c to 18c to bring this grade in line with the others.

CAMPHOR—Slabs were firm at from 54c to 55c per pound. Demand, however, was most active in tablets which are still in short supply and quite strong. Prices on the whole kept strictly in line with the replacement position.

Exports of synthetic camphor from Germany in the 11 months of 1933 totaled 1,231 metric tons, compared with 1,268 tons in the first 11 months of 1932. This compares with exports of 1,788 tons in 1931, 2,181 tons in 1930, and 3,049 tons in 1929.

TRAGACANTH—Movement of quality gum very fair and prices in all respects firm. Advances noted in previous months maintained in all respects.

GAMBOGE—Prices were advanced as a result of a good demand. Pipe sold at from 60c to 65c and powdered gum at from 70c to 75c.

BENZOIN—Outside holders induced competition so that there was some unsettlement in the spot market. However, regular dealers continued to quote as heretofore so that officially the market was without open price change.

Following is a list of botanical imports detained by the Eastern District Federal Food and Drug Administration as being in violation of Act Governing Product in Question. From Week ending February 14, 1934 to week ending March 7, 1934.

Caraway seed	700 bags
Cantharides	5 cases
Cumin seed	1,000 bags
Stramonium	34 bags
Stramonium	38 bales
Cubebs	66 bags
Licorice Root	1,263 bales
Aniseed	150 bags
Celery seed	10 bags
Coriander	333 bags
Balsam Peru	25 cases
Mustard seed	900 bags
Poppy	335 bags
Cardamons	5 cases
Cardamons	1,120 lbs.
Henbane	4 bales

Botanicals

The tendency of consistent advance in crude drugs that set in some five or six months ago is continued in the spot market. The situation is still such as to suggest a continuation of this trend. An undersupply in many items was unquestioned and in practically all of them, both domestic and foreign, were said to be in under normal supply. This in itself was a very bullish factor. Added to this condition was the increased demand for many items induced by the very severe weather that prevailed for several months.

RHUBARB—Exports from China through the Port of Shanghai to the United States increased threefold during 1933, amounting to 110,000 pounds valued at $12,000, as against 46,000 pounds valued at $5,000 during 1932. (Consul General E. S. Cunningham).

PSYLLIUM SEED—Comparatively dull and without price feature. Material in supply and low prices still prevailing.

Department of Commerce reports that the psyllium seed import trade in 1933 showed an appreciable decline in quantity and a very decided decline in price. Among the botanicals imported principally for medicinal use, psyllium seed still retains the foremost position as far as quantity is concerned, but the much lower declared value per pound places it second to cinchona bark in point of value.

While psyllium seed can be grown in the United States, and such an undertaking has been considered, potential producers should approach such a project with a knowledge of not only the high declared value per pound that prevailed during and prior to 1931, but the 1933 figures as well.

Details of the trade follow:

SAFFRON—Advanced again rather sharply as cheap lots were taken out of the market. Prices now range from $12.50 to $12.75 per pound as to quantity. Shipment prices was also said to be about $2.00 a pound higher.

GENTIAN—During 1933, exports from Spain from the Vigo area amounted to 71 tons; no gentian root was shipped in 1932.

ANGOSTURA BARK—The improved demand was said to have fully warranted the higher price of from 25c to 26c per pound.

BUCKTHORN—From 6c to 7c was generally wanted. Fairly steady business supported quotations.

TONKA BEANS—Still much doubt as to the size of the new crop. The general feeling, however, was that it would be small. In the meantime this item continued in small supply. Importers recently advanced prices in an effort to discourage large buying.

SAW PALMETTO BERRIES—New crop said to be the smallest in years, with a good part of it in firm hands who are holding for higher prices. Stocks in hands of some local dealers are reported to be such that only business from old established customers can be accepted. Prices ranged from 6c to 7c.

SABADILLA SEED—In short supply on spot and higher at from 37c to 38c per pound. Uncertainty as to arrivals being admitted by the Department of Agriculture resulted in intermittent shortages. The heavy consuming season is drawing to a close, however, and a general slackening in activity is anticipated.

STRAMONIUM—Very firm at from 30c to 31c per pound with most sellers being inclined to be conservative in view of uncertainty regarding replacements of a quality that will pass on arrival here. Stocks quite conservative in this market.

PASSION FLOWER—Higher at from 7c to 8c per pound. The market has been quiet for some time the advance being a reflection of the general tendency.

SARSAPARILLA ROOT — Mexican material advanced 2c per pound now being quoted at from 15c to 16c. This grade was in small spot supply with most dealers holding out for higher prices. Honduras root was quiet at from 50c to 52c per pound.

Vanilla Beans Strong

The vanilla bean market as a whole was one of much strength, particularly so in the Bourbon grades. A month ago an advance of 10c per pound was noted on spot and the current market is again higher to the extent of 25c per pound making the price range as to quality from $1.25 to $1.75 per pound. This is a recovery from the low of 75c per pound reached last year.

The strength is particularly noticeable in the low grade beans. Advices from Madagascar indicate that production as a whole will be smaller and that the cheap grades will be practically unobtainable this year.

Various factors contributed to the strength displayed in the market for this commodity. The cost of living in France has been steadily increasing and with it the value of most raw materials. The Government has also endeavored—and apparently with some success—to increase prices by limiting the exportable amount of beans by restrictions on quality. This has materially effected the low priced beans. The higher qualities have been in comparatively small supply for some time now.

Late reports would also indicate that there is considerable speculation going on in France. The tendency there is to put money into commodities rather than keep large bank deposits—the recent banking crisis undoubtedly being instrumental in causing this trend. These speculative factors evidently intend to hold for still higher prices as importers here have been experiencing difficulty in obtaining replacements or even obtaining price offerings.

The latest bullish factor, said to be largely responsible for the current advance of 25c per pound, was the second French estimate of production which puts the likely supply at 500,000 pounds less than the first estimate. Demand has also noticeably improved.

An advance of 10c per pound was also noted for Meixcan cut beans placing this range at from $2.50 to $2.75 per pound. It is said that supply will not exceed from 20,000 to 25,000 pounds, a bullish factor.

Production of whole Mexican beans is estimated at 65,000 pounds which is small for this grade. There was no advance in the price of whole beans, however, the range being from $3.00 to $4.00.

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In the development of flavors, MM&R take justifiable pride.

In our laboratories, chemists are constantly working with MM&R flavors . . . improving them where possible . . . striving to develop new flavors of commercial value. As a result, MM&R flavors have proved an effective force in increasing the sales of many nationally known pharmaceutical preparations.

CHERRY FLAVOR MM&R

A reproduction of the flavoring value of the natural fruit in a highly concentrated form that faithfully reproduces the tang of the cultivated cherry to an amazing degree. Perfectly wholesome and free from deleterious substances.

This flavor is best brought out in slightly acid solutions. One ounce will flavor from four to eight gallons of syrup or elixir, depending on degree of concentration desired.

PINEAPCO MM&R

A faithful reproduction in highly concentrated form of the true flavor of pineapple. Finest available . . . pure, wholesome and economical. Excellent in neutral solutions, better in slightly acid solutions.

One-half to one ounce of flavor is sufficient to flavor one gallon of finished product.

Particularly recommended for use in cough syrups, oral antiseptics and other galenicals, especially those for administration to children. Working samples on request.

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Mohawk Brand Oil Peppermint
Aromatic Chemicals
Natural Isolates
Perfume Oils
Infused Oils
Balsams

"LINKS THE MARKET WITH THE MANUFACTURER"

Basic Flavoring Materials
Terpeneless Essential Oils
Paragon Olive Oil
Essential Oils
Oleoresins

T. L. BEESWAX T. L.

Over 80 Years of Continuous Business in the United States

T. L. PURE WHITE BEESWAX, Extra Quality, is prepared from the highest and most costly grade of crude beeswax. It is most carefully selected at its source and again, on arrival at the T. L. factory, examined piece by piece. Doubtful pieces are rejected. It is 100% pure and higher than U. S. P. standards.

T. L. WHITE BEESWAX has been the standard of quality for *over eighty years*. Its constant uniformity gives the best results in making cold cream.

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A. C. DRURY & CO.
Importers
219 E. North Water Street
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Pacific Coast
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Absorption Bases	lb.	.60	.75
Acetanilid	lb.	.26	.27
Acetone Pure	lb.	.10½	.11½
Acetophenone C P	lb.	3.50	3.65
Acetophenetidin	lb.	1.30	1.40
Acetylsalicylic Acid	lb.	.70	.75
Aconite Root	lb.	.15	.16
Agar Agar, No. 1	lb.	.53	.56
Alcohol C8	lb.	14.00	18.00
C9	lb.	25.00	26.00
C10	lb.	18.00	21.00
C12	lb.	14.00	24.00
ALCOHOL			
Denatured No. 1 Spec	gal.	.335	.415
Denatured No. 5 Comp	gal.	.34	.42
Denatured 23a, Spec	gal.	.37	.49
Denatured 39b, Spec	gal.	.38	.50
Denatured 40m, Spec	gal.	.34	.46
Ethyl USP 190 pr	gal.	...	4.245
Grain USP	gal.	...	4.645
Pure Tax free ethyl	gal.	...	.445
Pure Tax free grain	gal.	...	.845
Aldehyde, C7	lb.	4.50	5.50
C8 (Octyl)	lb.	30.00	35.00
C9 (Nonyl)	lb.	40.00	45.00
C10 (Decyl)	lb	30.00	35.00
C12 (Laurinic)	lb.	41.00	42.00
C12 (Methyl Nonyl Acetic)	lb.	18.00	30.00
C14	lb.	8.50	14.00
C16	lb.	9.25	16.00
C18	lb.	35.50	36.00
Almond Meal	lb.	.18	.19
Almond Oil, Bitter	lb.	2.75	3.10
Sweet	lb.	.75	.78
Aloes, Curacao	lb.	.14	.15
Aloin	lb.	1.00	1.05
Amaranth No. 107	lb.	2.80	2.90
Amber Oil, Rectified	lb.	.55	.60
Liquid	lb.	2.20	2.30
Ambergris	oz	14.00	35.00
Amidopyrine	lb.	4.00	4.10
Ammonium Borate	lb.	.35	.35½
Bromide	lb.	.39	.40
Carbonate	lb.	...	.12
Citrate	lb.	.80	.86
Ichthyolate	lb.	4.00	4.50
Iodide	lb.	3.55	3.60
Salicylate	lb.	1.15	1.20
Valerate	lb.	2.75	2.90
Amyl Acetate	lb.	.43	.50
Butyrate	lb.	.95	1.50
Cinnamate	lb.	9.50	9.75
Cinnamic Aldehyde	lb.	3.75	4.00
Formate	lb.	...	1.75
Phenyl Acetate	lb.	4.50	5.00
Salicylate	lb.	.65	1.25
Anethol	lb.	1.00	1.10
Angostura Bark	lb.	.25	.26
Anise Seed Star	lb.	.11½	.12
Spanish	lb.	.16¼	.16¾
Anise Oil, USP	lb.	.43	.46
Anisic Aldehyde	lb.	3.00	3.50
Antipyrine	lb.	2.00	2.50
Apomorphine Hydrochloride	oz.	23.70	23.95
Apricot Kernel Oil	lb.	.30	.33
Arabic Gum, Powd., USP	lb.	.12½	.16½
Seconds	lb.	.17	.18
Sorts, Amber	lb.	.08½	.09
White No. 1	lb.	.19	.21
Arnica Flowers	lb.	.14	.15
Arrowroot	lb.	.09	.09½
Asafoetida	lb.	.18	.20
Atropine Alk	oz	5.25	5.50
Atropine Sulfate	oz.	2.50	2.55

Balsam Copaiba Para	lb.	.40	.42
Balsam Peru	lb.	1.75	2.10
Balsam So. Amer., USP	lb.	.42	.44
Balsam Tolu	lb.	.70	.80
Barberry Bark	lb.	.16	.18
Barbital	lb.	3.50	3.60
Bay Oil	lb.	1.55	1.70
Bay Oil, Terpeneless	lb.	4.25	4.45
Bay Rum	gal.	.75	.90
Beeswax, White	lb.	.33	.36
Belladonna Leaves	lb.	.22	.23
Benzaldehyde	lb.	1.25	1.35
Benzocaine	lb.	5.00	5.75
Benzoic Acid	lb.	.53	.58
Benzoin Gum, Siam	lb.	1.05	1.50
Benzoin Gum, Sumatra	lb.	.22	.24
Benzonaphthol	lb.	2.50	2.60
Benzophenone	lb.	1.75	2.25
Benzol Chloride	lb.	1.00	1.05
Benzyl Acetate	lb.	.60	1.00
Alcohol	lb.	.85	1.15
Benzoate	lb.	1.10	1.20
Cinnamate	lb.	6.50	6.70
Formate	lb.	2.75	3.50
Propionate	lb.	2.25	2.40
Salicylate	lb.	3.50	3.75
Succinate	lb.	5.25	5.50
Bergamot Oil	lb.	1.65	1.90
Terpeneless	lb.	6.25	8.00
Birch Oil, Southern	lb.	...	1.85
Sweet, Northern	lb.	3.00	3.10
Birch Tar, Oil	lb.	.75	.80
Bismuth Ammonium Citrate	lb.	...	3.40
Chloride	lb.	...	2.85
Citrate	lb.	...	2.77
Nitrate	lb.	...	1.20
Oxychloride	lb.	...	2.95
Subcarbonate	lb.	1.65	1.78
Subgallate, USP	lb.	1.65	1.78
Subiodide	lb.	...	4.20
Subnitrate	lb.	1.40	1.53

Bismuth Subsalicylate	lb.	2.45	2.50
Salicylate	lb.	...	1.85
Tannate	lb.	...	2.32
Bois de Rose, Brazilian	lb.	1.25	1.35
Cayenne	lb.	2.65	3.15
Borax, crys	lb.	...	.04½
Boric Acid	lb.	.07	.08
Borneol	lb.	1.75	2.00
Bornyl Acetate	lb.	1.50	2.60
Brilliant Blue, FCF	lb.	13.00	13.50
Bromoform	lb.	1.75	1.90
Bromstyrol	lb.	4.00	4.25
Buchu Leaves, Short	lb.	.24	.26
Buckthorn Bark	lb.	.06	.07
Burdock Root	lb.	.12	.13
Butyl Anthranilate	lb.	...	...

Cade Oil	lb.	.32	.38
Caffeine Alkaloid	lb.	2.20	2.30
Caffeine Citrated	lb.	1.80	1.85
Caffeine Salicylate	lb.	...	2.95
Cajuput Oil	lb.	.55	.65
Calamus Oil	lb.	3.00	3.25
Calcium Bromide	lb.	...	.60
Carbonate	lb.	.05	.06
Gluconate	lb.	.47	.52
Glycerophos	lb.	...	1.15
Hypophosphite	lb.	.55	.60
Lactate	lb.	.35	.40
Sulfide	lb.	.21½	.24
Camphor, Japanese	lb.	.54	.55
Camphor Oil Sassafrassy	lb.	.17	.19
White	lb.	.22½	.24½
Cananga Oil, Native	lb.	2.00	2.10
Rectified	lb.	2.50	2.60
Candelilla Wax	lb.	.13	.14
Cannabis	lb.	.16	.23
Cantharides, Chinese	lb.	1.15	1.20
Caraway Oil	lb.	2.05	2.25
Cardamon Oil	lb.	11.00	24.00
Carnauba Wax No. 1	lb.	.35	.36
Carvol	lb.	3.25	3.75
Cascara Amarga	lb.	1.25	1.30
Cascara Sagrada	lb.	.09	.12
Cascarilla Bark	lb.	.60	.65
Cascarilla Oil	lb.	56.00	70.00
Casein, edible	lb.	.45	.55
Cassia Oil, Redist	lb.	1.10	1.15
Castor Oil, Odorless	lb.	...	.12
Cedar Leaf Oil	lb.	.65	.70
Cedar Wood Oil	lb.	.31	.35
Celery Oil	lb.	9.00	13.00
Ceresin Wax	lb.	.08	.12
Chalk, Eng. light	lb.	...	.04½
Chalk, heavy	lb.	...	.04½
Chalk, Precip., light	lb.	...	.04½
Chamomile Flowers, Hungarian	lb.	.18	.19
Roman	lb.	.70	.75
Chaulmoogra Oil	lb.	...	1.50
Chloral Hydrate	lb.	.80	.85
Chloroform, USP	lb.	.31	.34
Chlorophyll	lb.	3.75	4.00
Cholesterin	lb.	11.00	17.00
Chrysarobin	lb.	3.50	3.55
Cinchonidine Sulfate	oz.	.45	.47
Cinchonine Alkaloid	oz.	.50	.58
Cinchonine Sulfate	oz.	34	36
Cinchophen	lb.	2.75	3.25
Cinnamic Acid	lb.	3.45	4.50
Cinnamic Alcohol	lb.	2.90	3.25
Cinnamic Aldehyde	lb.	2.00	2.25
Cinnamon	lb.	10.00	17.50
Citral	lb.	2.25	2.75
Citric Acid	lb.	...	.28
Citronella Oil, Ceylon	lb.	.36	.37
Java	lb.	.40	.42
Citronellol	lb.	2.55	3.00
Citronelyl Acetate	lb.	3.50	4.50
Civet	oz.	2.10	3.00
Clove Oil	lb.	.95	1.00
Cocaine Alkaloid	oz.	...	12.57
Cocaine Hydrochloride	oz.	9.25	10.00
Cocoa Butter	lb.	.22	.24
Codeine Alkaloid	oz.	11.70	12.45
Hydrobromide	oz.	...	8.92
Hydrochloride	oz.	10.50	10.55
Nitrate	oz.	...	9.80
Phosphate	oz.	9.00	9.05
Salicylate	oz.	...	8.25
Sulfate	oz.	10.50	10.55
Cod Liver Oil	drs.	28.50	30.00
Cohosh Root	lb.	.06	.07
Colchicine Alkaloid	oz.	...	22.00
Colchicine Salicylate	oz.	...	35.50
Collodion	lb.	.13	.14
Colocynth Pulp	lb.	.28	.30
Coltsfoot Leaves	lb.	.07	.08
Coriander Oil	lb.	4.35	4.50
Coumarin	lb.	3.25	3.50
Cream Tartar	lb.	.18½	.19
Creosote, USP	lb.	.45	.47
Cresol, USP	lb.	...	.18½
Cubebs	lb.	2.50	2.80
Culvers Root	lb.	.15	.16
Cumin	lb.	7.50	9.00
Cumin seed, Morocco	lb.	.18	.19

Damiana Leaves	lb.	.25	.26
Dandelion Root	lb.	.17	.18
Deer Tongue Leaves	lb.	.07½	.09
Digitalis Leaves	lb.	.38	.40
Dill Oil	lb.	2.90	6.75

Dimethyl Anthranilate	lb.	12.25	12.50
Benzyl Carbinol	lb.	...	16.00
Hydroquinone	lb.	7.25	7.50
Dover's Powder	lb.	2.75	2.80
Duodenal substance	lb.	...	3.75

Echinacea Root	lb.	.17	.18
Elder Flowers	lb.	.15	.16
Elemi Gum	lb.	.11½	.12½
Elm Bark	lb.	.17	.18
Emetine Hydrochloride	oz.	15.00	15.25
Ephedra Vulgaris	lb.	.05	.06
Ephedrine, Alkaloid	oz.	1.50	1.90
Hydrochloride	oz.	1.30	1.65
Sulfate	oz.	1.30	1.65
Epsom Salts	100 lb.	2.25	2.50
Ergot	lb.	.43	.50
Erigeron	lb.	1.15	1.40
Erythrosine No. 517	lb.	17.00	17.50
Eserine Alkaloid	oz.	42.00	42.25
Eserine, Salicylate	oz.	23.00	23.25
Ether, USP	lb.	...	.12
Ethyl Acetate	lb.	.09	.10
Anthranilate	lb.	9.25	9.50
Benzoate	lb.	1.25	1.50
Butyrate	lb.	1.80	2.00
Caproate	lb.	3.25	3.50
Chloride	lb.	.22	.24
Cinnamate	lb.	4.00	4.50
Formate	lb.	1.00	1.25
Phenyl Acetate	lb.	3.75	4.00
Salicylate	lb.	1.95	2.00
Valerate	lb.	...	3.75
Eucalyptol	lb.	.65	.70
Eucalyptus Leaves	lb.	.06	.07
Eucalyptus Oil	lb.	.29	.31
Eugenol	lb.	2.25	2.50

Fennel	lb.	1.15	1.40
Formaldehyde, USP	lb.	.07	.07¼

Galbanum Gum	lb.	.85	.90
Gall Extract	lb.	.20	.21
Gamboge Gum	lb.	.60	.65
Gentian Root	lb.	.12	.13
Geraniol	lb.	1.50	3.00
Geranium Oil, African	lb.	6.50	7.50
Bourbon	lb.	5.75	6.75
Geranyl Acetate	lb.	2.95	3.00
Butyrate	lb.	13.00	13.50
Formate	lb.	12.00	12.50
Gingergrass Oil	lb.	2.50	2.70
Ginger Oil	lb.	3.40	3.75
Glycerin, CP	lb.	.12	.12¼
Glycerophospheric Acid 25%	lb.	1.40	1.75
Golden Seal Root	lb.	1.00	1.05
Grape Fruit Oil	lb.	3.00	3.15
Guaiac Gum	lb.	.20	.22

Haarlem Oil	gross	...	3.25
Heliotropin	lb.	1.85	2.10
Hellebore Root, Black	lb.	.05½	.06
White	lb.	.07	.08
Helonias Root	lb.	.25	.27
Hemlock Oil	lb.	.70	.85
Henbane Leaves, USP	lb.	.23	.24
Henna Leaves	lb.	.08	.09
Hexamethylenetetramine	lb.	.46	.47
Horehound Herb	lb.	.08	.09
Hydrangea Root	lb.	.06	.07
Hydrastine Alkaloid	oz.	9.00	9.50
Hydrochloride	oz.	9.00	9.50
Sulfate	oz.	11.00	11.50
Hydrastinine Hydrochloride	oz.	22.50	23.00
Hydrogen Peroxide, USP	lb.	.06	.06½
Hydroscine Hydrobrom, USP	oz.	35.00	35.00
Hydroxycitronellal	lb.	2.90	3.50

Iceland Moss	lb.	.09	.10
Indol	oz.	2.90	3.00
Iodine, crude	lb.	15s ld. per kilo	
Resublimed	lb.	...	2.25
Tincture	gal.	...	3.00
Ionone	lb.	4.00	4.50
Alpha	lb.	9.50	9.65
Beta	lb.	6.75	7.00
Methyl	lb.	5.75	6.00
Iodoform, powd	lb.	...	4.62
Ipecac Root	lb.	.75	.80
Irish Moss	lb.	.14	.15
Iron & Ammonium Citrate	lb.	.52	.53
Iron Chloride, USP, lump	lb.	.06	.08
Citrate	lb.	.84	.89
Hypophosphite	lb.	1.45	1.50
Phosphate	lb.	...	.69
Potassium Oxalate	lb.	.32½	.40
Pyrophosphate, USP & Sodium Oxalate	lb.	.74	.80
Sulfate	lb.	.27½	.28½
Sulfate Ferrous, dried	lb.	.04	.04½
Iso Butyl Benzoate	lb.	3.75	4.00
Iso Eugenol	lb.	3.25	4.25
Iso Safrol	lb.	1.75	1.85
Isopropyl Alcohol	gal.	.80	.85

Jaborandi Leaves	lb.	.11	.12
Jalap Resin	lb.	...	4.00
Jalap Root	lb.	.16	.17
Japan Wax	lb.	.07	.07½
Juniper Berry Oil	lb.	1.50	3.50
Juniper Wood Oil	lb.	.50	.60

Kaolin	lb.	.05	.08
Kaolin, Colloidal	lb.	.10½	.12
Kamala	lb.	.20	.21
Karaya Gum	lb.	.10	.25

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Labdanum Oil	lb.	5.50	6.00
Lactic Acid, USP	lb.	.49	.51
Lanolin	lb.	.16	.20
Lavender Oil	lb.	3.75	6.00
Lavender Spike Oil	lb.	.78	1.35
Lead Acetate	lb.	.10½	.11½
Lecithin, animal	lb.	16.00	20.00
Vegetable	lb.	1.00	2.50
Lemon Oil, California	lb.	...	.75
Italian	lb.	1.15	1.40
Lemon Grass Oil	lb.	1.15	1.40
Lemon Peel	lb.	.12	.13
Licorice Compound Powder	lb.	.11	.13
Licorice Extract Mass	lb.	.19½	.20
Licorice Root	lb.	.12	.15
Lime Oil, distilled	lb.	6.25	7.00
Expressed	lb.	9.25	11.50
Linaloe Oil, Mex	lb.	1.40	1.50
Linalol	lb.	2.00	4.00
Linalyl Acetate	lb.	2.00	3.50
Benzoate	lb.	13.00	14.00
Formate	lb.	10.50	12.00
Lithium Carbonate	lb.	1.25	1.35
Citrate	lb.	1.40	1.50
Liver Extract 1-20	lb.	...	5.75
Lobeline Sulfate	oz.	...	8.75
Lycopodium	lb.	.32	.34
Mace Oil, distilled	lb.	1.30	1.35
Magnesium Carbonate	lb.	.08½	.09
Glycerophosphate	lb.	3.20	3.25
Hypophosphite	lb.	1.35	1.40
Oxide	lb.	.35	.45
Stearate	lb.	.18	.20
Malva Flowers, blue	lb.	.55	.60
Mandarin Oil	lb.	4.00	4.25
Manganese Glycerophosphate	lb.	2.60	2.65
Manganese Iodide	lb.	5.30	5.35
Manna, large	lb.	.90	.95
Manna, small	lb.	.70	.75
Mastic Gum	lb.	.37	.40
Menthol	lb.	2.75	2.85
Synthetic	lb.	2.25	2.65
Mercury Bichloride	lb.	.88	.96
Bisulfate	lb.	...	1.48
Calomel	lb.	...	1.31
Iodide	lb.	3.70	3.95
Red Precip. Powd	lb.	...	1.44
Salicylate	lb.	...	2.32
White Precip	lb.	...	1.51
Methyl Acetophenone	lb.	2.00	2.15
Anthranilate	lb.	2.15	2.25
Benzoate	lb.	1.25	1.35
Cinnamate	lb.	3.35	4.00
Heptenone	lb.	3.50	4.00
Paracresol	lb.	4.50	8.00
Phenylacetate	lb.	2.50	2.75
Salicylate	lb.	.40	.43
Mineral Oil, Russian	gal.	.78	1.03
Mineral Oil, White	gal.	.56	.99
Montan Wax	lb.	.10½	.11
Morphine Alkaloid	oz.	11.15	11.20
Acetate	oz.	8.80	8.85
Ethyl Hydrochloride	oz.	10.55	10.60
Hydrobromide	oz.	8.75	8.80
Hydrochloride	oz.	8.85	9.10
Sulfate	oz.	8.75	8.80
Mullein Flowers	lb.	1.00	1.05
Mullein Leaves	lb.	.07	.07½
Musk Ambrette	lb.	6.00	6.25
Musk Ketone	lb.	7.55	7.80
Musk Root	lb.	.06	.07
Musk Tonquin	oz.	18.00	22.00
Musk Xylene	lb.	2.25	2.85
Mustard Oil	lb.	8.50	9.00
Artificial	lb.	1.85	1.95
Myrrh Gum	lb.	.25	.26
Naphthalene Flake	lb.	.04½	.05
Neo-cinchophen	lb.	15.00	18.00
Nerolin	lb.	1.40	1.50
Neroli Oil, Artificial	lb.	5.00	15.00
Neroli Oil, Bigarade	lb	70.00	100.00
Neroli Oil Petale	lb.	90.00	100.00
Nutmeg Oil	lb.	1.30	1.35
Nux-Vomica Buttons	lb.	.06	.07
Oleoresin Aspidum	lb.	...	1.25
Capsicum	lb.	2.25	3.25
Cubeb	lb.	2.30	2.60
Ginger	lb.	2.00	2.50
Orris	lb.	7.50	13.00
Vanilla	lb.	4.00	6.00
Olibanum Gum, siftings	lb	.07	.07½
Tears, No. 1 extra	lb	.19	.21
Olive Oil, Edible	gal	1.45	1.65
Orange Oil, American, cold pressed	lb.	...	1.10
American, dist	lb.	...	.55
Bitter	lb.	1.30	1.45
W. Ind	lb.	2.00	2.10
Italian	lb.	1.40	1.60
Orchic Substance (Testicular)	lb.	...	3.75
Origanum Oil	lb.	.25	.27
Orris, Oil Concrete	oz.	3.50	4.00
Orris Root, Flor	lb.	.11	.12
Verona	lb.	.08	.09
Ovarian Residue	lb.	...	10.00
Ovarian Substance, whole	lb.	...	12.50
Oxgall Powder	lb.	...	1.25
Oxgall Purified	lb.	2.00	2.50
Oxgall USP Extract	lb	1.80	1.90
Oxyquinoline Sulfate	lb.	3.50	4.75
Ozokerite Wax, Green, hard	lb.	.33	.42
White	lb.	.28	.40
Yellow	lb.	.22	.28
Pancreatin	lb.	...	1.90
Papain, Pure, powdered	lb.	3.50	3.75
Para-Aldehyde	lb.	.48	.50
Paracresol Methyl Ether	lb.	3.25	3.50
Paracresyl Acetate	lb.	4.25	4.50
Para-Cymene	gal.	2.25	2.50
Paraffin Wax	lb.	.053	.065
Parsley Oil	lb.	7.25	7.50
Passion Flower	lb.	.07	.08
Patchouli Leaves	lb.	.15	.16
Patchouli Oil	lb.	3.25	4.00
Pennyroyal Herb	lb.	.08	.09
Leaves	lb.	.12	.13
Pennyroyal Oil	lb.	1.70	2.00
Pepper Black	lb.	...	6.00
Peppermint Oil, Natural	lb.	2.55	2.80
Peppermint Oil, Redis	lb.	2.80	3.00
Pepsin, USP	lb.	2.25	6.50
Peptone	lb.	...	1.25
Petit Grain Oil, S. A	lb.	1.25	1.35
Petrolatum, Lily white	lb.	.08½	.09½
Petrolatum, Snow white	lb.	.09½	.10½
Phenobarbital	lb.	5.50	6.00
Phenolphthalein, USP	lb.	.52	.60
Phenolphthalein, Yellow	lb.	...	.47
Phenylacetaldehyde	lb.	5.00	8.25
Phenylacetic Acid	lb.	2.25	2.50
Phenyl Diacetate	oz.	3.00	3.25
Ethyl Acetate	lb.	6.50	7.00
Ethyl Alcohol	lb.	3.85	4.10
Ethyl Butyrate	lb.	10.00	11.00
Ethyl Formate	lb.	19.00	21.00
Ethyl Propionate	lb.	10.00	12.00
Ethyl Valerate	lb.	14.00	15.00
Methyl Carbinol	lb.	...	10.00
Methyl Carbinol Acetate	lb.	...	10.50
Propyl Alcohol	lb.	5.50	6.00
Propyl Aldehyde	lb.	...	12.00
Phosphoric Acid	lb.	.14	.15
Pilocarpine Hydrochloride	oz.	2.50	2.75
Pilocarpine Nitrate	oz.	2.40	2.65
Pimento Berry Oil	lb.	2.75	3.00
Pimento Leaf Oil	lb.	1.15	1.30
Pine Needle Oil	lb.	.75	.90
Pinus Pimulio Oil	lb.	2.00	2.05
Pinus Sylvestris Oil	lb.	1.40	2.00
Piperadine	lb.	...	8.00
Pituitary Substance, whole		...	38.50
Anterior Lobe		...	36.50
Plantago, Seed, Blonde	lb.	.05¼	.06
Ponceau 3R No. 56	lb.	5.75	6.00
Podophyllin	lb.	3.00	3.25
Poppy Flowers	lb	.35	.40
Potassium Acetate	lb.	.26	.30
Bicarbonate	lb.	.07½	.08
Bromide	lb.	.35	.36
Citrate	lb.	.38	.42
Guaiacol Sulfonate	lb.	1.65	1.70
Hypophosphite	lb.	.65	.70
Iodide	lb.	...	1.85
Lactophosphate	lb.	...	.90
Permangan	lb.	.18½	.19
Phosphate Dibasic	lb.	...	.49
Salicylate	lb.	...	1.18
Sulfate	lb.	.13	.15
Sulfocyanide	lb.	...	.50
Tartrate	lb.	...	.65
Prickly Ash Bark	lb.	.12	.15
Prickly Ash Berries	lb.	.20	.21
Psyllium Seed, Black	lb.	.12	.14
Pyrethrum Flowers	lb.	.26	.28
Quince Seed, Persian	lb.	.85	1.25
Spanish	lb.	.60	.65
Quinidine Alkaloid	oz.	.96	1.02
Sulfate	oz.	...	.67
Quinine Bisulfate	oz.	...	.61
Citrate	oz.	...	.81
Dihydrobromide	oz.	...	.84
Dihydrochloride	oz.	...	.84
Glycerophosphate	oz.	...	1.23
Hypophosphite	oz.	...	1.01
Phosphate	oz.	...	.92
Salicylate	oz.	...	.82
Sulfate	oz.	.51	.61
Rennet	lb.	...	3.75
Resorcinol	lb.	1.57	1.65
Rhatany Root	lb.	.11	.12
Rhodinol	lb.	5.75	8.00
Rhubarb Root HD	lb.	.25	.26
Rice Starch	lb.	.09	.10
Rochelle Salt	lb.	.13½	.14
Rosemary Oil	lb.	.38	.48
Rose Oil, Bulg	oz.	7.50	15.00
French	lb.	14.00	17.00
Rue Herb	lb.	.16	.18
Rue Oil	lb.	2.25	2.50
Sabadilla Seed	lb.	.37	.38
Saccharin	lb.	1.70	1.80
Saffron Flowers	lb.	.17	.19
Saffron Valencia	lb.	12.50	12.75
Safrol	lb.	.36	.38
Sage Oil, Dalmatian	lb.	2.40	2.50
Salicylic Acid	lb.	.40	.45
Salol	lb.	.90	.95
Sandalwood Oil	lb.	6.00	6.00
Santonin	lb.	48.00	52.00
Saponin	lb.	1.15	1.25
Sarsaparilla Root, Honduras	lb.	.50	.55
Mexican	lb.	.15	.16
Sassafras Bark	lb.	.08	.10
Sassafras Oil	lb.	.90	1.05
Sassafras Oil, Artificial	lb.	.31	.33
Savin Oil	lb.	2.00	2.50
Savory Leaves	lb.	.07½	.08
Saw Palmetto Berries	lb.	.06	.07
Scammony Resin	lb.	1.30	1.35
Scammony Root	lb.	.06	.07
Seidlitz Mixture	lb.	.11½	.12
Senega Root	lb.	.40	.45
Senna Alex	lb.	.20	.25
Senna Half Leaf	lb.	.08	.10
Senna Tinnevelly, Bold	lb.	.11	.13
Silver Nitrate	oz.	.33⅜	.34⅜
Nucleinate	oz.	...	.30
Proteinate	oz.	.29	.31
Skatol	lb.	4.50	7.00
Soap Bark, crushed	lb.	.15	...
Soap Bark, cut	lb.	.07½	.08½
SOAP			
Castile	lb.	.25	.27
Green	lb.	.07½	.07½
Neutral powd	lb.	.18½	.20½
Sodium Benzoate	lb.	.47	.52
Bromide	lb.	.36	.37
Citrate	lb.	...	.31½
Glycerophosphate	lb.	1.27	1.33
Hypophosphite	lb.	.60	.65
Iodide	lb.	2.75	2.80
Phosphate	lb.	.28	.29
Phosphate Di Sodium	lb.	.07½	.08
Pyrophosphate	lb.	...	.29
Salicylate	lb.	...	.47
Sulfocarbolate	lb.	...	.25
Spartein Sulfate	oz.	.60	.62
Spearmint Oil	lb.	1.20	1.35
Spermaceti	lb.	.20	.21
Spruce Oil	lb.	.75	.80
Stearic Acid, TP	lb.	.12½	.13
Stramonium Leaves	lb.	.30	.31
Strontium Bromide	lb.	.52	.53
Strychnine Alkaloid	oz.	...	.52
Glycerophosphite	oz.	...	.71
Hypophosphite	oz.	...	.81
Phosphate	oz.	...	.71
Sulfate	oz.	...	.46
Styrax Genuine, USP	lb.	.38	.43
Styrax Liquid, Artificial	lb.	.26	.35
Succinic Acid	lb.	...	1.35
Sugar of Milk	lb.	.18	.20
Sulfurous Acid	lb.	.05	.06
Talc, French	ton	45.00	50.00
Italian	ton	60.00	75.00
Tansy Oil	lb.	1.85	2.00
Tar Oil, USP	lb.	.75	1.50
Tartar Emetic	lb.	.28	.29
Tartaric Acid	lb.	.26	.26½
Tartrazine No. 94	lb.	2.80	2.90
Terebene	lb.	.65	.70
Terpineol	lb.	.39	.45
Terpin Hydrate	lb.	.50	.51
Terpinyl Acetate	lb.	.85	.90
Theobromine Alkaloid	lb.	1.80	1.85
Thyme Oil, red NF	lb.	.55	.97
Thyme Oil, white NF	lb.	.80	1.05
Thymol	lb.	1.70	1.75
Thymol Iodide	lb.	3.85	3.90
Thyroid, USP		...	3.75
Tonka Beans, Angostura		3.00	3.25
Para	lb.	.65	.75
Surinam	lb.	1.60	1.70
Tolyl Aldehyde	lb.	1.70	2.65
Tragacanth Gum No. 1	lb.	1.15	1.25
No. 2	lb.	1.00	1.10
Turmeric Root Aleppy	lb.	.06¼	.06¾
Madras	lb.	.06	.06½
Turpentine, Artificial	lb.	.15	.16
Turpentine, USP	lb.	.27	.30
Turpentine Venice True	lb.	.35	.36
Valerian Root	lb.	.18	.21
Vanilla Beans, Bourbon	lb.	1.25	1.75
Mex. Cuts	lb.	2.50	2.75
Mex. Whole	lb.	3.00	4.00
Vanillin	lb.	4.25	4.75
Veratrine Alkaloid	oz	...	2.25
Sulfate	oz.	...	2.25
Vetivert Oil, Bourbon	lb.	8.75	9.00
Indian	lb.	22.00	25.00
Java	lb.	18.00	19.00
Vetivert Root	lb.	.20	.25
Vetiveryl	lb.	19.50	20.00
Acetate	lb.	22.00	23.00
Wahoo Bark of Root	lb.	.38	.40
Wahoo Bark of Tree	lb.	.16	.18
White Pine Bark, Roseed	lb.	.05½	.06
White Poplar Bark	lb.	.06	.07½
Witch Hazel Bark	lb.	.05½	.06½
Witch Hazel Extract	gal.	.60	.80
Witch Hazel Leaves	lb.	.06	.07
Wild Cherry Bark, Green	lb.	.06	.07
Wild Cherry, Rossed balls	lb	.09	.10
Wine Oil, heavy	lb.	1.50	1.60
Wintergreen Oil	lb.	4.00	8.00
Wormseed, American	lb.	.06	.07
Wormseed Oil	lb.	2.00	2.10
Wormwood Herb	lb.	.09	.10
Wormwood Oil	lb.	3.10	4.00
Ylang Ylang Oil, Bourbon	lb.	6.00	7.00
Zinc Carbonate	lb.	.28	.31
Zinc Chloride	lb.	.24	.29
Zinc Iodide	lb.	4.20	4.25
Zinc Oxide	lb.	.13	.14
Zinc Stearate	lb.	.18	.19
Zinc Sulfate	lb.	.08	.09

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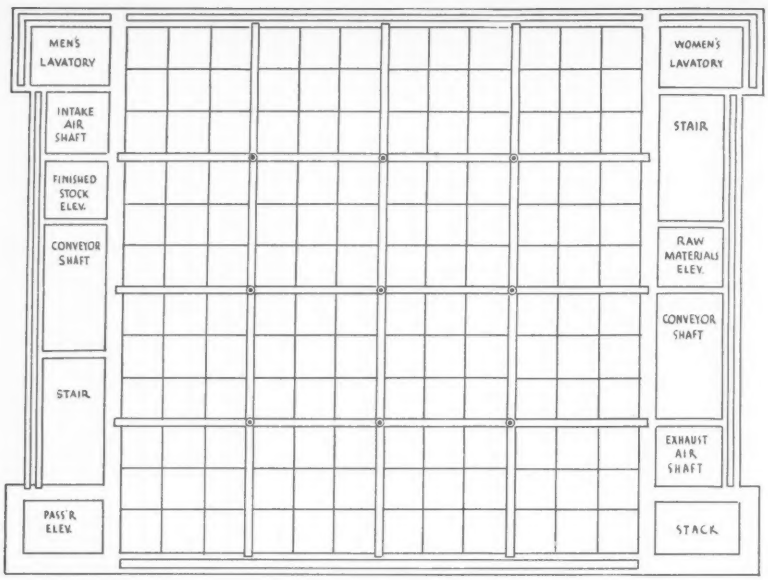
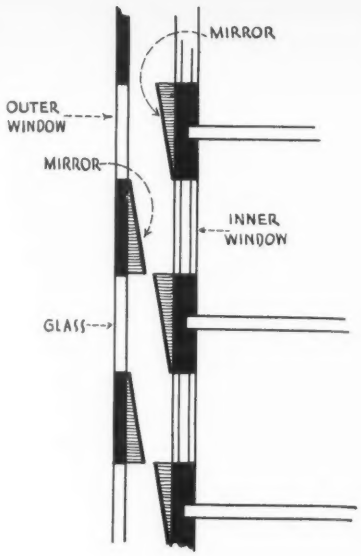


FLOOR CONSTRUCTION



CROSS-SECTION OF WALLS

Drug Plant of the Year 2000

(*Continued from page 236*)

square foot and is capable of sustaining a floor load of 950 pounds per square foot.

This was accomplished by *suspending* the floors on cables specially hardened to insure against elongation instead of supporting them by means of concrete pillars and pilasters. Although it had been known for many years that a rod of steel or a cable is capable of sustaining a very much greater load, when that load is vertically suspended from it, than it is capable of supporting when that load rests upon it, the principle was not applied to architecture until the construction of the Mead-Davis plant. This building is built very much in the manner of a suspension bridge. It has an arched roof made of steel and aluminum girders, supported at the ends by reinforced steel and aluminum side walls and corner pilasters. From this arched roof all floors are suspended by means of a series of one and a half inch insulated steel cables, spaced at twenty foot intervals. These cables occupy so little room that practically all of the floor space is free from obstruction. With one exception each floor is given further support by being anchored on the horizontal beams in the side walls. The top floor floats free of the building altogether and is suspended from the roof girders by its own set of cables, the main cables passing through it.

This floating floor is free from vibration because it is not connected with the risers through which vibration is transmitted from the floors up to the roof girders. The vibration transmitter through the roof girders is absorbed by the hydraulic suspension valves to which the supporting cables are fastened. To insure against side sway and noise the edges of the floor are insulated by means of continuous sponge rubber cushions. This floating floor is reserved for the use of the control and research laboratories and clinics and also for treatment wards, which will be described in detail later. Because of the provision made for insulating this floating floor it is possible to operate the most sensitive instruments without being affected by vibration caused by operating equipment.

The floors are hollow and are made with duraluminum girders and insulated metal plates. Each floor is seven inches thick. The flooring itself consists of square sheets of a hard, rust proof steel alloy one-eighth inch thick knurled on the upper surface, fastened to the girders with countersunk screws. Where operators work it is covered with rugs of ribbed rubber. The flooring plates are insulated from the girders with strips of composition rubber to minimize vibration, to deaden sound and to water proof the seams. The ceilings consist of corrugated magnesium alloy sheets one sixteenth inch thick, insulated and fastened to the girders like the floor plates. The corrugations enables the sheets to withstand pressure and increase light reflecting surface.

(*To be concluded*)

Sunburn Preparations

(*Continued from page 266*)

Spirit of camphor	1%
Rose water	85 "
	100%

Procedure: Dissolve the zinc sulfocarbolate in the alcohol. Add the glycerin and the spirits of camphor, mix with the rose water.

No. 3.

Boric acid	4%
Acetic acid	2 "
Citric acid	1 "
Alcohol	10 "

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Glycerin	5%
Water	78 "
	100%

Procedure: Heat part of the water and dissolve the boric acid in it. Dissolve the citric acid in the alcohol and the acetic acid in the remainder of the water. Add the glycerin, boric acid solution the citric acid solution, mix and filter.

No. 4. Sunburn Salve

Benzocaine	4%
Boric acid	5 "
Lanolin	15 "
Petrolatum	76 "
	100%

Procedure: Mix the benzocaine and part of the petrolatum. Add the boric acid and run through an ointment mill until a smooth and impalable mass is formed. Melt the remainder of the petrolatum and lanolin, strain and add the milled medicament base.

No. 5. Sunburn powder.

Boric acid	10%
Bismuth subnitrate	5 "
Magnesium stearate	10 "
Isobutyl ester-para-amino-benzoic acid	5 "
Talc	70 "
	100%

Procedure: Make the same as talcum powder.

No. 6.

Picric acid solution 20%	1.5%
Alcohol 90%	10. "
Water	88. "
Perfume	.5 "
	100.0%

Procedure: Dissolve the perfume in alcohol, add to the water and then dissolve the picric acid in the solution. This is excellent for sunburn but as it is will stain the skin yellow; it may be found objectionable for facial sunburn. As dry picric acid is expensive when heated quickly or subjected to percussion, it is safer to purchase the 20%.

New Medicines

(*Continued from page 247*)

Lentin-Tablets—The product is now made in tablets as well as in ampoules. The tablets weigh 5 mg. each and are intended only for the treatment of stomach worms in sheep. Chemische Fabrik E. Merck, Darmstadt.

Ringulein Tablets—These contain "a combination of higher esters of p-hydroxybenzoic acid." The ring form increases the dissolving surface of the tablets considerably and enables the tongue and oral muscles to exert a greater sucking and swallowing effect. Recommended for the prevention of infection of the oral and throat cavities. Dallmann & Co., Wiesbaden-Schierstein.

Apotheker Hubos Roskosan—A brown salve, of which 70% is Ungt. molle and the remaining 30% consists of Extr. Arnicae fld., Extr. Hamamel. fld., Extr. Eucalypt. fld., Extr. Rosmarin. fld., Bals. Peruv., Elemi, the ethyl ester of p-aminobenzoic acid, zinc oxide, boric acid, bismuth subgallate, camphor, sagrotan, Cera fl. and Cetaceum. For use in the treatment of all eruptions and particularly for hemorrhoids. A. Roskowetz, Chem.-pharm. Produkte "Roskosan" Wittenberg, Bez. Halle.

Rusan-Tea consists of Fol. Meliss., Fol. and Flor. Aurant., Rad. Valerian., Fol. Trifol. fibr., Fol. Menth. pip., Flor. Strob. Lupuli, Cort. Frangul., Herb. Veronic., Herb. Fragariae, Herb. Serpylli and is recommended for the treatment of nervousness, insomnia, etc. Hch. Hennigson, Inh. W. Grundmann, Berlin-Lichterfelde-Ost.

Sinetussin-Drops—These are compounded from 2% ephedrine, 1% codeine phosphate and Extr. Droser. rot., Thymi, Castan. vesc. to 100. For treating coughs, bronchitis, whooping cough and tuberculosis. For adults the dose is 10 to 15 drops 3 to 4 times daily and for children 3 to 5 drops. Pharmifa, Worms/Rh. Fabrik pharm. Praparate, Inh. W. Lohr and H. Keller.

SiO_2 "Deutsche Heilsalbe" consists of colloidal silicon dioxide, Ammon. icethyol., Extr. Hamamelid. virg. fld., Natr. biborac., Zinc. oxyd., Bismut. subgallic., Adeps Lanae, 01.Rosar. It is intended for use in the treatment of burns, sunburn, skin eruptions, eczema, hemmorhoids, etc. F. Blumhoffer, Koln.

Syrup. thymo-guaiacol. Sagitta—The mixture has the following composition: potassium sulfoguaiacolate 8.0, calcium glycerophosphate 3.0, Extr. Thymi fld. 15.0, Sirup. Aurant. to 185.0. The same preparation with the addition of arsenic contains 0.01% of arsenic acid while the compound with codein contains 0.1% codeine phosphate. For the treatment of tuberculosis, bronchial asthma, whooping cough, bronchitis as well as all other affections of the respiratory tract. Sagitta-Werk G.m.b.H., Munchen 2 SW.

Turosin-Salve—The composition of this preparation is stated to be the following: 41.2 Vasel. americ., 5.0 01. Cacao, 1.0 01. Sesami, 2.0 01. Cocos, 0.5 Cera flav., Acid. boric., Colophon, Acid. Tannic., 01. Caryophyll., 01. Eucalypt. ana 0.2. For the treatment of wounds, ulcers, eczema, Ulcus cruris. Chem. Fabrik Steinau G.m.b.H., Wiesbaden-Schierstein.

Vulnojod—This is an iodine wound-plaster consisting of brown 5 by 8 cm. pieces similar to the so-called English plaster. When simply moistened and placed upon the wound, the plaster at once liberates iodine, simultaneously dries up the secretion and causes the wound to close. The preparation does not lose its effectiveness on long standing. Gebr. Schubert Berlin.

Neurolent—Tablets containing dimethylamindopyrazolone, sodium diethylbarbiturate acetylsalicylic acid, methylphenylquinolincarboxylic acid. For treating gout, rheumatic diseases, neuralgia, lumbago, migraine headaches. Rheumunguent Medizinische Chemische Laboratorium Kassel.

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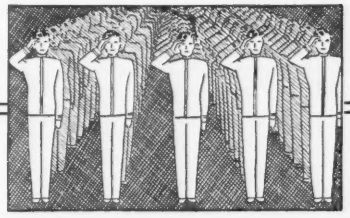

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